

**Lake Champlain Steering Committee Meeting
Meeting Summary**

Thursday, June 11, 2020

Location: Webinar

Attendance:

Steering Committee members: Pete Laflamme (Co - Meeting Chair VTANR for Julie Moore), Julie Moore (Meeting Chair VTANR), Joe Zalewski (NYS DEC), Vic Putman (Chair, NY CAC), Mark Naud (VT CAC), Buzz Hoerr (Chair, E&O Committee), Jean-François Cloutier (Quebec MELCC, for Nathalie Provost), Neil Kamman (Chair, TAC), Pierre Leduc (Chair, Quebec CAC), Mario Paula (EPA R2 for Rick Balla), Steve Garceau (Quebec MNRF), Ryan Patch (VT AAFM for Alyson Eastman), Laura Trieschmann (ACCD), Mel Côté (EPA R1), Andrew Milliken (USFWS), Blake Glover (NRCS NY), Craig DiGiammarino (VTRANS), Vicky Drew (VT NRCS), Breck Bowden (Lake Champlain Sea Grant)

Staff: LCBP: Colleen Hickey, Lauren Jenness, Jim Brangan, Ryan Mitchell, Matthew Vaughan, Mae Kate Campbell, Elizabeth Lee, Eric Howe, Meg Modley Gilbertson, Kathy Jarvis; Hannah Weiss, NEIWPCC: Susan Sullivan, Heather Radcliffe, NYS DEC: Koon Tang, Lauren Townley, Julie Berlinski; Sarah Coleman (VT ANR; LCBP VT Coordinator), EPA Region 1: MaryJo Feuerbach, Bryan Dore

Guests: Tom Berry (Sen. Leahy's office) Haley Pero (Sen. Sander's office), Jonathan Carman (Cong. Stefanik's Office), Thea Wurzburg (Cong. Welch's Office), Justin Kenney

9:45 AM Connect to GoToMeeting webinar, networking

10:00 Meeting Begins *Vermont ANR Chair*

- Welcome and Introductions.

Pete LaFlamme welcomed the group, a round of introductions were made.

- Draft Meeting Agenda review
- **ACTION ITEM:** April 2020 Steering Committee meeting minutes approval

- **ACTION ITEM:** **Approve Meeting Minutes from April 2020 Steering Committee Meeting**

Motion to approve by: Neil Kamman

Second by: Andrew Milliken

Discussion on the motion: None.

Vote: All in favor. None opposed.

Abstentions: Jean-Francois was absent.

10:05 Public Comments

- None.

10:10 Legislative Updates

- Tom Berry (Senator Leahy): Appropriations, we're hard at work on FY21 appropriations, process thus far is about on schedule despite COVID. Requests were submitted to sub-committees, going through back-and-forth process. Not sure when we will pass the appropriations bills, under normal years there are delays during election years, and this is anything but a normal year. Senator Leahy's priorities include: EPA geographic areas funding, GLFC program, Army Corps -- made specific reference to 542 program to make it clear he wants to see that program funded and encouraged to move Gordon's landing breakwater project forward. House has adopted the HEROES act, but Senate majority leadership does not feel stimulus is a priority. Great American Outdoors act is moving this week in the Senate, would be most significant conservation bill passed in Tom's tenure. Are some potential pitfalls but seems to be in good shape to pass the Senate.
 - Neil: Can you give me an example of a state-side program that would be funded under this Act? Tom: mostly recreation development and land conservation work, typically State receives block grant to spend on state park acquisition and maintenance, put out grants to municipalities.
- Thea Wurzburg (Congressman Welch): House passed HEROES act but Senate probably won't take it up. Looking at appropriations in July, Congressman will keep pushing for priorities. Unsure when things will be moved along. Great American Outdoors Act is great news, House is excited about that, plans on taking it up as soon as it passes the Senate.
- Jonathan Carman (Congresswoman Stefanik): Congresswoman is co-sponsor on Great American Outdoors Act, remains committed to make sure Lake Champlain is at the forefront.
- Tom: Sen. Sander's staff has done great work on a water resource development act that is moving out of committee, would have implications for 542 and the Waterbury dam.
 - Thea: hoping to start working on that on the House side in July as well.

10:30 Steering Committee updates – Federal Partners, States, Provincial, Advisory Committees

- EPA Region 2 - Mario Paula reported that NYC started phase 1 on work from home orders on Monday but phase 2 may not be entered for another 3-4 weeks, depending on data. All regional offices are on continuity of operations. On FY20 grants are moving forward and have been working with NYS to get their grant application in for the budget approved by the Steering Committee in mid-April. With Fred Dunlap's retirement, coordinated with LCBP and NYDEC to fund salary position through NEIWPCC grant while maintaining majority of other projects NY receives through direct EPA agreement.
- EPA Region 1 – Mel Coté reported EPA reopening regional offices- in the process of evaluating phased reopening Region 1, and are about to open phase 1. The Boston office was cleaned June 1st, and plan is for Phase 1 to begin one week later, but due to slight uptick in cases Phase 1 has been delayed slightly. Office open for mission-critical work. Staff are still working from home.

More than 90% of people rely on mass transit to get to the office. Bryan Dore added that the EPA is participating in NEIWPCC workgroup for State and Federal Partners for nutrient tracking, discussing tracking and accounting with short-, medium- and long-term visions. Section 120 competition exemption has been granted and finalized, the piece that allows EPA to directly award funds to VT, NY, and NEIWPCC for the Lake Champlain program. This is good for the next 10 years. Grants in conjunction with UVM drinking water treatment residuals, field work was delayed. Expecting monitoring will resume shortly and project will continue on schedule, able to share results hopefully this year.

- US Fish and Wildlife Service - Andrew Milliken - submitted written update. Highlights include national fish hatcheries in VT have remained open. Dwight D Eisenhower hatchery is raising salmon for 2021 stocking, includes fish to support river run Saranac and Boquet. Saranac salmon stocked in net pens. Winooski and Boquet salmon will be tested for success of relatively new broodstock thiaminase resistance and genetic diversity. Conservation office will be able to resume field work as of June 1st. Including salmon restoration program working closely with hatcheries, Bouquet River for salmon fry, radio tagging fish in Winooski River. Sea lamprey control program not able to do spring trapping. Impact of untrapped rivers won't be visible to about 2025. Also going forward with 4 lampicide treatments this fall. Habitat restoration work continuing to move forward. 5 wetland projects, riparian restoration project. Working remotely with planting contractors. Culvert replacement work on track for 2020. Riparian restoration staff working upper LaPlatte, other systems, and are experimenting with direct seeding trials. Missisquoi Refuge - managed to resume some field work this week, visitor contact stations remain closed while public use is high. 3 bald eagle nests have been re-established with 10-15 juveniles. Blue heron have moved because of the eagles. June 5th USFWS announced draft statement and rule for EIS management of double-crested cormorants. Includes proposed option for States to have permit program, would complement existing permit programs.
- Blake Glover - 12 out of 43 service centers are in phase 1, rest are in telework ability. Field offices focusing on conservation training. Northeast area conservationist has retired, has been with them for almost 40 years. This is the first Steering Committee meeting Blake has attended.
- Vicky Drew - phasing offices back to normal, will take at least 6 weeks. Staff busy in the field with conservation work. Working to finish up EQIP assessments but working with new software tool that isn't working well, caused delay. Providing early start waivers for farmers. RFP for conservation innovation grants (CIG) closed last week, assembling team to review. At national level NRCS issued RFP for alternative funding arrangement, closed end of May. VT put in a PES application. Alternative funding means all money goes out to partners, which is a different model for NRCS. VTDEC Lake Champlain RCPP project (\$16M project coming to a close) still has projects that need technical assistance, in some cases qualified partners can provide this assistance. Increasing interest in grazing management plans and NRCS VT currently capped on hiring. Working with UVM to develop basic agriculture 101 course for employees coming in with no ag experience.
- VT Agency of Agriculture - Ryan Patch - shared written update with scope of work his division is engaged in and status of programs. Agency has been engaged with Legislature. Dairy relief package, Governor Scott's administration proposed \$50M with \$40M going to dairy, \$10M for

processors. Committees working on putting together legislation independent from the Governor's plan, numbers provided in report. Agency gearing up to put in place emergency relief funds that can go to farmers and producers quickly. H.656 has passed the House and is now in the Senate. Hemp language in there, number of additional administrative changes for the water quality division. The Agency did submit to RCPP AFA proposal for Payment for Ecosystem Services. Looking at a holistic and comprehensive PES program that is broader than phosphorus. Staff continue to work from home, but authorized to return to field for farm inspections. Have been doing investigations and enforcements. Also authorized for field to do ag bmp work with engineers returning to field work. For SFY21, demand is high to move forward with projects so working on funding.

- VT Agency of Natural Resources - Pete LaFlamme - Lake Carmi aeration compressors up and running with some issues. Stormwater construction general permit issued and went live in mid-May. New requirements for 100% online applications due to COVID. Lake Champlain WWTF permits are being issued, permits are being updated and made available online, running a bit behind. ITRC research wing has draft HAB document, led by Angela Shambaugh. Lake Greeter program off to slower start but doing training and as usual have committed group of people in the field to do this work. Neil Kamman added that they are working on an annual intended use plan, with creative uses. Capitalizing on 319 projects that exist in Clean Water SRF law. Clean Water Fund board had emergency meeting, approved 50% of what the planned revenue is for. Law passed in 2019 requiring development of new dam safety rules. Rules are almost complete and will be an improvement.
- VT Agency of Commerce & Community Development – Laura Treischmann: No updates.
- NY Department of Environmental Conservation – Joe Zalewski -Refer committee to written updates. In addition, Fred Dunlap has officially retired. Thanks for many years of service protecting the environment and working in the Basin. Until they have an official replacement, feel free to reach out to Joe and he can refer you.
 - Neil - proposed writing letter of thanks to Fred Dunlap. The Committee agreed. Eric will coordinate.
- Quebec Ministry of Environment and the Fight Against Climate Change – Jean-Francois Cloutier: There is now in place an inter-ministry committee with some new funding, asked ministries to concentrate on international agreements to look at Lake Champlain and Memphremagog. Hired new inspector, want to see action and more fieldwork in watersheds. Highway 35 to be extended toward the border through the town of Pike River, working with ministry of transportation to design a bigger span on the bridge. This morning there was a report of a fish kill in Missisquoi Bay, looking into that.
- Quebec Ministry of Forests, Fauna, and Parks – Steve Garceau - With COVID there's been a big impact, all still teleworking, many activities canceled. Softshell turtle research ongoing slowly, starting to resume work. Copper redhorse artificial reproduction work could not take place this year. Fisherman wondering when border will open, there are economic impacts. Supposed to be re-opened sometime in July. Will look forward to discussion with USFWS on lampricide treatments this fall, border closure may impact this.

- Quebec CAC - Pierre Leduc- Our partners are submitting 3 project proposals to the MELCC (due tomorrow, decision by year end). Projects need to be executed within a year, must address at least one issue identified in master plan for Missisquoi Bay watershed. Up to \$200,000. Municipality of Bolton East wants to launch boat wash station to serve Missisquoi north. Continuation of action plan to clean Lake Parker in Missisquoi north area, phase 2 of this project. Also looking at project for development of bi-national mass balance for phosphorus, which was one of 6 priority recommendations from the recent IJC report. Given the short timeframe to submit a proposal, OBVBM decided to focus just on Rock River watershed for now. With small project they can eliminate obstacles that bi-national projects can face, work together to identify information needed, common protocols for working across the border. This will help when time comes to tackle a larger project covering whole watershed. Wide interest in this project from both sides of border from scientific and management communities. Thank LCBP and VT DEC for support in submitting this proposal.
- New York CAC - Vic Putman - Fred retired so we have not met since we met with Eric regarding LCBP coordinators position. NY still has quite a few dams, Trout Unlimited has been working on Imperial Dam removal. Have resolutions from City of Plattsburgh and Town, trying to get resolutions from Clinton County. Received proposal from Penfield Historical District regarding the dam in Crown Point. Milone and MacBroom submitted a proposal for assessment of this dam. Dam is dilapidated, not worth repairing, needs to be removed and replaced. Removal cost estimated at \$600,000 following the assessment. Trying to work with partners to locate funds for that project.
- Vermont CAC - Mark Naud- Mark will be joining late; reported to Eric that VT CAC has not met since March due to COVID.
- LCBP Education & Outreach Committee - Colleen Hickey - see extensive written updates. Resource room planned to reopen late June/early July. NEIWPCC and ECHO reviewing plan. Raise the Blade program is moving forward with the City of South Burlington, which passed a resolution in support of the program and hopes to implement it in their parks and recreation fields. After considering the COVID grants, grant reviewers suggested that LCBP hold a video development workshop. 51 attended the workshop on Monday, offering 4 follow-up workshops for direct feedback. Look for the AIS art sail on Burlington waterfront, invasive species design chosen to represent watershed issues. Hope the sail will be out in July.
- CVNHP Heritage Area Advisory Committee - Jim Brangan- HAPAC hasn't met, but there is a lot going on. 4 museums have decided not to open for the 2020 season, however there's a lot of online programming happening. See written updates for more details. 20 heritage area partners joined the video development workshop, received good feedback so far. Elizabeth Lee is wrapping up work on the suffrage banners. We were planning display them in museums, instead will be displaying them in town greens and parks throughout the summer. Ryan Mitchel developed new website for the CVNHP. Will include summaries of grants administered. National Geographic hosted a Drain the Oceans program on Lake Champlain to show computer rendering of the *Spitfire* vessel.
- LCBP Technical Advisory Committee - Neil Kamman - See written update. Want to highlight the final report for Farm PREP tool. Important resource which will allow farmers to insert their P

reduction targets and game out an optimized solution set of BMPs specific to their land that will allow them to most effectively meet those reductions. The Steering Committee approved a modest investment in the new LCBP budget into modernizing the LTMP. Recommend instrumenting the Lamoille River and Mallets Bay. Flood risk datasets manuscript - first piece of technical output for functioning floodplains initiative to create optimized mapping and modeling to understand where the best floodplain restoration areas are and the nutrient reductions that would come from that. TAC did discuss the IJC final report, one of the big recommendations is the mass balance for the whole watershed. Jason Scott, UVM MS student, presented on an oil spill emergency response plan, has recommendations to improve our ability to respond if a spill occurs. LCBP staff leading follow-up efforts. Ellen Marsden presented on her lake trout reproduction research, which has now documented natural reproduction of lake trout in the Lake. Matt Vaughan added that the technical team is working at full speed to keep projects moving, get new projects off the ground and adapting to COVID. The Missisquoi Bay project to evaluate alternatives for internal loading of P, private and park roads in Carmi REI assessment, tile drain monitoring and filter experiments are back up and running. Efficacy of BMPs for managing tile drained fields report is now finalized, will be up on the LCBP website shortly.

11:30 LCBP updates – Boat launch/Outreach stewards, new CVNHP website

- Fred Dunlap retired last month. Fred has been involved with the LCBP since before we were the LCBP, served on the Non-point source subcommittee of the Lake Champlain Management Conference. Over the subsequent 30 years, Fred's role with the LCBP and NYS DEC grew to his role as NYS DEC Coordinator over the past decade, in which he managed LCBP-funded grants routed through NY DEC, served on probably hundreds of grant review committees for LCBP, served as the NYS DEC representative on the Technical Advisory Committee, and generally served as a helpful advisor for me on all things Lake Champlain over the past several years. Working with NYS DEC to refill Fred's position for this fall.
- COVID starting to take steps to move staff back into Resource Room and Grand Isle office. FY20 funding agreements moving forward. NPS executed last month. NEIWPCC currently reviewing EPA workplan. LEAN budget development process is continuing.
- Meg Modley added that we were able to work with NEIWPCC to hire boat launch stewards, who started Memorial Day weekend, and worked with Paul Smith's College to hold the training program. Biggest problem have is tracking health of stewards due to COVID. Storage units for decontamination stations have been deployed to launches.
- Section 542 projects- St Albans project moving forward but are not able to start until fall for field work. Have had three 3-hour sessions for the Champlain Canal barrier alternatives study. Stakeholder group has recommended moving forward with 1 -3 alternatives. State partners and USACE talking about Lake Champlain Maritime Museum quagga mussel early detection study. Vergennes WW project moving forward, developing letter of interest. We don't have enough funds left in the 542 program.
- Black Lives Matter movement has been brought up, we are talking about different ways LCBP can do our part in the human and civil rights issues at the national level. As the Steering

Committee is aware, LCBP cannot engage in activism or lobbying efforts. For our part in this movement, we can look to our mission and make sure we are inclusive of all stakeholders. One approach is to work with a small group, including Lake Champlain Sea Grant, to develop an approach. We may begin with a listening tour in context to access to the lake, ability to interpret health of ecosystem. It would be great to document these stories first. That also aligns with the Heritage Area mission, and can build that feedback into our process. We want to take a thoughtful, careful and inclusive approach, and take advantage of the holistic energy of the current movement. Will be looking into staff trainings, translation of outreach material and web content. We will be looking at a DEI webpage, and advisory committee memberships. We also will be looking into recruitment of a consultant to help us out with this work.

- Many Steering Committee members expressed support toward LCBP for this effort.
- NEIWPC - Heather Radcliffe - NEIWPC is sensitive to the issues facing our country, and committed to training at our March 2020 meeting, which was rescheduled for November 2020. Also, will be providing a training session on unconscious bias, to be held in the next month. NEIWPC is working on rebranding. Unveiled new brand and strategic plan in April. One of major things is embracing NEIWPC as name. Also maintaining resource page and have adjusted offering live remote training sessions. Susan Sullivan thanked Heather for the updates, and added that NEIWPC is concerned with circumstances we find ourselves in the country, figuring out best way to move forward. She is excited for the NEIWPC rebranding.

12:10 PM Lunch

12:40 LCBP COVID-19 Support for watershed organizations – *Eric Howe*

Discussion to provide emergency support for watershed groups by re-directing existing funding

- Eric summarized the Steering Committee previous approval of re-directing funds for COVID relief for watershed groups. The grant program went through in 3 weeks. From that program, 14 grants were issued, summing to approximately \$58,000. All applicants received funding. We still have approximately \$90,000 available that could be awarded to a second round of emergency grants. LCBP staff have not polled watershed groups as they did in the first round, but groups have not reached out to LCBP staff for additional support.
- After some discussion, the Committee agreed that there is not a significant need for a second round of grants at this time, but LCBP should continue to keep these funds in reserve in the event that the need arises again. There was a suggestion for LCBP to consider support to watershed groups to move their operations digitally, outside of COVID. This can be done through the traditional LCBP organizational support grant program.

12:50 Continuous Process Improvement for LCBP Budget Development – *Eric Howe*

- This project was initiated to examine the LCBP budget development process and identify unnecessary process points that could be reduced or clarified. A core group was assigned to participate in process with Eric. EPA R1, VT DEC, NY DEC, QC ministry of environment, and

NEIWPPC. Justin Kenney from Vermont Agency of Administration facilitated. Core group first met at end of April to look at background and scope of this approach. They described the background of LCBP, partners, funding sources and how those funds move through partners. Identified current conditions: LCBP budget has grown substantially, has caused some complications like increased steps and increased requests from partners, process is time intensive. Group agreed to try to address process time. LCBP grants occur on different timeframes with different criteria. The core group identified 4 goals for the process: reduce the number of times committee members need to meet to discuss the budget, streamline process/clarify process for all committees/members, develop consistency in process for competitive grants, allow for more time for discussion of LC issues that are not part of the budget process. The group decided the scope would just be the LCBP annual budget development process and would not focus on the CVNHP process, which is straightforward. The core group acknowledged funding limitations and identified the need to have new budget process in place by September 2020.

- Next, Eric described the steps that the core group took to evaluate the current process and consider how it could be improved. The group developed process maps to visually communicate the current budget process. Eric explained how process maps work: rows are 'swim lanes' representing groups with role in budget process. Columns are months of the year. Colors represent different budget components (white = line items, orange = technical budget process, blue = E&O, green = TMDL). Eric explained the current budget process for each of the different funding components represented by the different colors.
- Eric then introduced the proposed new process. The June Steering Committee meeting would become a Summit meeting. Goal would be to identify themes for upcoming year. Would review past projects, would get a federal budget 'weather report' from congressional staff and LCBP budget status report from NEIWPPC, and clarify roles and responsibilities. Idea for themes is for the Steering Committee to use OFA to identify themes that fall within 4 goals to focus on in upcoming budget. Core group will meet once more to clarify these new steps if the Steering Committee approves this approach. Summit would include Steering Committee members, could invite representatives from all advisory committees.
 - Neil commented that he sees a parallel in concept of summit meeting, think it's a neat idea, but the preparational work that goes into that meeting can really set the stage for a successful meeting.
 - Pete: the goal here was to overall take stock of where we are, given the work that's been done and the work of the preceding projects that have been approved and budget that has been approved, and challenges remaining, then think about the direction we want to take from there that would guide the development of project priorities for the coming year. Currently, the Steering Committee responds to a collection of priorities, this would allow the SC to be more leading as opposed to reactionary.
 - Buzz: I think the concern that we have is that historically we have enjoyed a lot of input from our partners that were driven by what they were seeing first hand. It has served us well to hear from the community to hear what their priorities are. Concerned that this

would be driven too much top down and not enough bottom up, especially in the E&O community.

- Eric: Brings back to the conversation about who would participate in the summit and what preparation steps would go into planning before the meeting. Eric will likely recruit a professional facilitator for the first summit.
- Justin Kenney: The 4 Steering Committee meetings are going to have a distinct focus; in many respects they build on each other. I think a big thing here is that you never want to take a step back. Old process had a bunch of do-loops, lack of clarity in roles and responsibilities. New project provides clarity, has checkpoints for progress.
 - There was additional conversation about the best way to use the advisory committee membership, and LCBP will likely include their involvement in the Summit to help inform Steering Committee decisions with the perspectives provided by the advisory committee members, and possibly others to be determined.
- Eric: The next major adjustment is the E&O budget process. Over the course of the summer E&O will receive the feedback from SC about themes, identify priorities based on those themes. E&O would issue call for full proposals later in the fall so it does not overlap with existing timeframe of current grant competitions. Proposals would be submitted to staff by the end of December, discussed in January and considered by Executive Committee in February. TAC process remains more or less the same, except for the December Steering Committee meeting. If the Steering Committee agrees, the TAC will now determine which projects should move forward from RFPP to full proposal, which could lighten December Steering Committee agenda. This Committee has not historically changed TAC recommendations. Steering Committee members could still provide feedback and ask questions, staff will take feedback and add it to notices to applicants who are moved to full proposals. This also would be a place for Steering Committee members to ensure that proposals are considered from a policy perspective as well.
- Eric: the TMDL process will remain mostly the same.
- Eric: There are a number of assumptions to review: we will develop web page to outline process and roles and responsibilities for budget development process. RFPs will describe decision-making process that will be used. Also, will have calendar outlining important dates for each step. If the Committee chooses to move forward with this approach, Eric suggests transitioning E&O to this process this year.
 - Buzz expressed some concerns about the Summit process. He is struggling with how this would make things better. Think we need to keep an eye out for what could bring us down. Concerned that we are taking too much information from agency heads and not relying on our people on the ground. Eric responded that the idea here was to at least clarify roles and responsibilities in steps in the process. Definitely still need to work on steps leading into summit meeting, and as discussed earlier would require advance work by all of the advisory committees. This could potentially include outreach before the meeting so it would still incorporate feedback from stakeholders.
 - MaryJo commented that it sounds like your concern would be that this process would not incorporate enough feedback from your committee. Buzz responded that it is not so much the input, it's really the whole idea of starting out from

the top down. Even if it's not so overt, people will find themselves feeling like they have to follow those steps, direction is already set. This might not happen in actuality, but is what it sounds like from how this is presented. Pete emphasized that this was not the goal at all, we want the Summit to be inclusive and include all the voices that contribute. It was not envisioned that the summit would produce narrow directives, but broad themes to provide a common area to all work towards together.

- Buzz also expressed concerns that we're going to start setting themes instead of relying in the priorities identified in OFA. We'll just have to go through the process and be cognizant of these possibilities.
- Pierre added that he thinks we need to plan to have that meeting be broad, plan priorities within the year to implement what we agree on at strategic meeting every 3-5 years with OFA review meeting. Timeframe of our actions is usually over many years. Think we need 2 kinds of this summit meeting, would like group to think about that.
- Neil commented that from the technical side, having a clear sense of LCBP technical priorities that they are going to stand up will help them feel more connected about how the research they do will be implemented in the policy stage. Acknowledge that this is different from the E&O world.
- Breck suggests adding EC meeting prior to June summit meeting to prepare.
- Eric: would like to have a vote to determine if the Steering Committee supports this direction, with the understanding that the core group will meet once more to clarify some of these concerns and remaining process steps, then we'll take the steps necessary to make it happen.
- ACTION ITEM: Adopt the new LCBP budget process

Motion to approve by: Neil Kamman

Second by: Breck Bowden

Discussion on the motion: Neil thanked the core team for working on this. Mark agreed that Justin's facilitation is amazing, agrees with Buzz about concerns, hopeful that the work around inclusivity and diversity can be put into practice during first attempt at Summit meeting. Tom also wants to make sure that in every step of the way we refer to OFA, as there can be a tendency to be all in on a certain problem, and referring back to OFA will help protect us from that. Koon adds that his assessment of this new process is that it really helps to feel more transparent and consistent throughout the budget prioritization process, and he feels in the long run it will be a good thing. This also helps streamline a lot of processes and clarifies roles and responsibilities. Koon hears Buzz's concerns, think its valid, like idea that theme setting might not be on an annual basis but might occur on every 3-year basis and the annual meeting could be to assess progress. Also thanked Justin. Supports at least exploring this process to help LCBP meet goals.

Vote: All in favor.

None opposed.

Abstentions: Buzz Hoerr.

- Motion carried.

1:45 FY21 Budget priorities – NY DEC, VT ANR, Others

- Sarah Coleman and Koon Tang co-presented the line item concepts from the States.
- 1. Implementation of MRGP Standards on Non-regulatory road networks.
- 2. Implementation of the forest load allocation of the LC TMDL.
- 3. Development and Review of Interstate Clean Water Project tracking and accounting methodologies.
- 4. Enhanced agricultural BMP pilot projects.
- 5. Inland lake watershed action plan (LWAP) funding concept.
- 6. National Wetland Inventory and Mapping of the Lake Champlain Basin
- 7. Stormwater planning and assessment.
- 8. State priority request for the LCBP technical request for proposals - Feasibility analyses of in-lake phosphorus and/or cyanobacteria mitigation techniques for Lake Champlain.
- Neil pointed out that TAC would want to take a look at the final priorities and provide feedback to the Steering Committee.
- There was some discussion about the NWI mapping concept. Koon clarified that they had talked with USFWS and the response was that because they don't have full wetland maps, they could use assistance in completing them. The maps would then be incorporated into the State inventory and State regulation could protect those wetlands.
- MaryJo expressed interest in and support for #3 and #4. Less interest in #5, Inland lake action planning. Price tag is huge and directs funds around from Lake Champlain itself. Preference to put funds into action directly protecting Lake Champlain before spreading out into inland lakes. In addition, the Steering Committee has funded LakeWise program. Why is there this additional need for support from LCBP?
- Breck responded that for many people the basin is a big basin, what they see is the lake in front of them. If we don't pay attention to smaller lakes, we could lose support for Lake Champlain. Lake Champlain is the only lake they ever hear about.
- Vicky: Also, NRCS has a robust program for wetlands restoration, and historically have struggled with getting farmers to agree to take land out of production. It often takes supplemental funds to enhance what NRCS can pay make the "sell". NRCS has nationally developed BMP effectiveness for agronomic practices based on CEAP modeling on cropland. Vicky also commented on the NWI mapping - while they are helpful from a broad perspective in understanding general location of wetlands, they are not reliable enough to replace an on-site determination. We need to be sure we are clear on what we are asking for with this task.
- Meg Modley added that we are waiting on VIDA (Vessel Incidental Discharge Act). There may be an opportunity to move forward with a recommendation for a GLANSIS (Great Lakes Aquatic

Nuisance Species Information System) database for Lake Champlain. This includes a live map that shows where invasives are present and add risk assessment that would be similar to the Great Lakes.

TAC Priorities

- Matt Vaughan - TAC had good discussion on initial priorities, road de-icing alternatives, environmental sensitivity index mapping, phosphorus mass balance analysis for Missisquoi Bay. Reviewing and evaluating PES tools in relation to VT's initiative, nutrient management programs. More work on NY specific stream equilibrium and geomorphic assessments. Emerging contaminants of concern PFAS. Nutrient trends in oligotrophic lakes.
- Neil commented on the last recommendation about oligotrophic lakes. It would be interesting to understand why HABs are happening on oligotrophic lakes and if there is an underlying signal that is causing it in other surface waters as well.

2:15 State of the Lake 2021 timeline – Survey response review

Eric introduced this agenda item. The next State of the Lake report is due to be published in June 2021. The current report was published in 2018. Ryan provided an overview of the proposed timeline for this work. Heading into the summer and early fall will be focused on examining and refining big picture messaging, with the goal to have that nailed down in October. Next will be graphic revision, new content development, and updates. Looking for approval from Executive Committee in March on that content, then design and layout by the beginning of May. Eric added that this approach more or less aligns with approach for 2018 report.

2:40 Executive Session to consider Artist-in-Residence Grant award, TAC membership nomination

- **ACTION ITEM:** Enter into Executive Session to approve Artist-in-Residence Record of Decision and TAC membership appointment

Motion made by: Buzz Hoerr

Second by: Neil Kamman

Discussion on the motion: none.

Vote: All in favor. None opposed.

Abstentions: none.

Exit Executive Session.

- **ACTION ITEM:** Approve Artist-in-Residence Record of Decision for grant award to Friends of the Winooski River

Motion to approve by: Mel Cote

Second by: Neil Kamman

Discussion on the motion: none.

Vote: All in favor. None opposed.

Abstentions: none.

- **ACTION ITEM:** Approve TAC Membership appointment of Dr. Margaret Murphy

Motion to approve by: Vic Putman

Second by: Breck Bowden

Discussion on the motion: none.

Vote: All in favor. None opposed.

Abstentions: none.

3:00 PM Adjourn

Meeting Outcomes:

1. Approval of summary of previous meeting
 - a. Approved.
2. COVID-19 Emergency Support Grants, Round 2
 - a. LCBP will not issue second round of grants at this time. Will be reconsidered if need arises in future.
3. LCBP Budget Process revision
 - a. Approved.
4. Conditional approval of priorities
 - a. Reviewed and considered. Refined descriptions to be presented in September.
5. State of the Lake 2021 Timeline
 - a. Reviewed.
6. Artist-in-Residence Award Decision
 - a. Awarded to Friends of the Winooski River.
7. Committee membership appointment
 - a. Dr. Margaret Murphy appointed to TAC.

Lake Champlain Basin Program Updates

Lake Champlain Steering Committee meeting, June 11, 2020

- COVID-19 Update: LCBP staff have been working remotely or in isolation since March 16 due to COVID-19. All staff have been set up with necessary tools to complete their work remotely for the foreseeable future. LCBP and NEIWPCC continue to move forward with execution of grant agreements awarded from the FY19 appropriations. Timelines for all new grant agreements executed after late March have automatically been extended by 12-18 months in the likely event that the 2020 timelines are delayed due to COVID-19 stay at home orders. Vermont-based staff are taking the online VOSHA COVID-19 safety training. COVID safety plans are in development for both the Grand Isle office space and the Resource Room in ECHO at the Leahy Center. Both plans will be reviewed by NEIWPCC and ECHO or Vermont State as needed prior to staff returning to work in those spaces on a regular basis. Many staff will end up working remotely through most of the summer.
- The BRAND NEW CVNHP website is live! Please check it out here: <https://champlainvalleynhp.org/>
- LCBP issued and awarded 14 Emergency Organizational Support grants for a total of \$57,115 in response to the COVID-19 pandemic and impacts to watershed groups in the Lake Champlain basin.
- At the request of the LCBP Executive Committee, LCBP coordinated the development of a video development training workshop series. Part 1 of the series was hosted on Monday, June 8 with over 50 participants from around the region learning the basics of video development. Part 2 follow-up workshops will be offered as small group webinar opportunities with the videographer to provide an opportunity to discuss projects and offer more in-depth question and answer time. Several of these Part 2 workshops will be offered over the next few weeks and later in the summer as new projects are developed and move forward by our partners.
- LCBP is coordinating two grant writing workshops with NYS DEC and VT DEC to be held later this summer. LCBP will recruit a consultant to develop the workshops in collaboration with LCBP and State staff to provide basic information and tips when developing proposals. Each workshop will focus on either New York or Vermont DEC grant programs in addition to LCBP grants.
- Boat Launch and Outreach Stewards have been trained and have started their work for the summer. 10 Boat Launch Stewards are working at locations in Vermont and New York. The Education and Outreach stewards are developing new content for next summer or potentially for later in 2020, pending relaxation of COVID-related restrictions.
- The USACE hosted stakeholder workshops the week of June 1. Workshop participants represented various interest groups, including federal, state, and local governments, and learned about options for an AIS barrier for the Champlain canal, connecting Lake Champlain to the Hudson River system.
- LCBP and NEIWPCC have been working on developing grant applications for FY20 appropriations to the National Park Service (agreement executed in May), Great Lakes Fishery Commission (submitted earlier this month), and to the EPA (in development). We expect all FY20-funded projects will be ready to move forward on or after October 1, 2020.
- Additional staff updates are provided in the Technical, Heritage, and E&O written updates appended to this document.
- [Upcoming LCBP Committee meetings](#) (all meetings are at LCBP office in Grand Isle unless otherwise noted):
 - September 2, 2020: LCBP Technical Advisory Committee
 - September 9, 2020: LCBP Executive Committee

- September 23, 2020: Lake Champlain Steering Committee ([La Cache du Lake Champlain](#), Venice-en-Quebec, Quebec)
- December 15, 2020: Lake Champlain Steering Committee. New York.
- April 13-14, 2021: Lake Champlain Steering Committee. Vermont.

EPA Region 1 Updates
LCBP Steering Committee
June 11, 2020

COVID-19: EPA Region 1 Evaluating Phased Reopening

EPA's COVID response provides for a "rolling reopening" where each facility will enter Phase 1 after two thorough reviews of health information that comprises the gating criteria outlined in the Reopening America Again Plan, while keeping in mind any City, State, or County requirements as well. During Phases 1 and 2, Region 1 staff will continue to be encouraged to telework whenever possible.

Last week, EPA space in Boston, Chelmsford and Woburn closed for a 7-day period to assure that any virus in those facilities was rendered inactive. During the review of 14-day trend data this week for Boston, Chelmsford, and Woburn, our Agency experts determined that the gating criteria to enter Phase 1 were not met and are in fact now trending upwards. EPA will continue to evaluate trends on a weekly basis to evaluate the safety of reopening its facilities.

NEIWPCC Nutrient Tracking and Accounting Workgroup

EPA has been participating in the NEIWPCC-led workgroup of State and Federal partners, including Vermont and New York, discussing issues and options for nutrient reduction tracking and accounting. The group has identified a beginning set of goals, including short term visions (common definitions, universe of projects from partners/region, monthly discussions), medium term visions (resource sharing, understanding of data collection efforts, identifying knowledge gaps, regional tracking and accounting plan), and long-term visions (development of performance curves/reduction efficiencies database, common data standards, and consistent land use mapping).

Section 120 Competition Exemption Granted

EPA Lake Champlain funding appropriated through Clean Water Act Section 120 has required an exemption from competition to directly fund NEIWPCC/LCBP, VT DEC, and NYSDEC. EPA Region 1 and 2 obtained a 10-year exemption that expires at the end of FY20. A new application for an exemption from competition has been drafted, circulated, and was recently approved by EPA Headquarters, continuing the exemption for these entities through September 30, 2030.

EPA-UVM Regional Applied Research Effort Grant – Drinking Water Treatment Residuals

The fieldwork component of EPA's RARE-funded project with UVM evaluating the effectiveness of bioretention systems enhanced with drinking water treatment residuals to enhance phosphorus removal was delayed due to COVID-19. EPA's Office of Research and Development is partnering with Region 1 and a team at UVM (Dr. Eric Roy and Dr. Stephanie Hurley) to conduct this research. The project workplan included phosphorus sorption tests (in the lab) of drinking water residuals and in-field testing at experimental bioretention research sites on the UVM campus, outside Jeffords Hall. UVM expects that monitoring will resume soon. As such, EPA is hopeful that this project will be on schedule to generate monitoring results next year.

Ralph Abele Retiring

Ralph, Section Chief of EPA Region 1's Water Quality Standards and a distinguished and well-respected environmentalist, will be retiring on July 2 after more than 40 years in Federal service. Ralph has been a colleague, friend, and mentor, and Region 1 will miss him dearly. If you have worked with Ralph and would like to send him off with a message, a message board has been set up to help collect your thoughts: <https://www.kudoboard.com/boards/3frSd5Qo>

Agency of Natural Resources
Updates for the Lake Champlain Basin Program Steering Committee
06/11/2020

Lake Carmi Aeration System Update

On June 2, 2020, the Lake's dissolved oxygen concentrations fell below the threshold (5 mg/liter) to start the aeration system. Fortunately, the team from Everblue Lake Systems had just performed aeration system maintenance during the week of May 25, 2020, and the aeration system is scheduled to be turned on by Friday June 5, 2020. DEC will continue water quality monitoring to assess the impact of the system on oxygen and phosphorus levels in the lake.

Stormwater Construction General Permit: The new Stormwater Construction General permit (CGP) went live on May 19th and included a new requirement that the permittee apply through our online application system (ANROnline). The new permit requirements and online application is a significant change and we expect to provide technical assistance and refine our guidance/instructions through the first applications received under this new system.

Lake Champlain WWTF Permits

The Lake Champlain WWTF permits for this fourth year in the implementation of the Lake Champlain TMDL and Phase One Implementation Plan are beginning to go out on public notice. This year permits are different from previous years as they incorporate a new database-driven process that seeks to modernize and make permit writing more efficient. The result is a significant change to the layout of the permit.

Draft Harmful Cyanobacteria Bloom Guidance

The Interstate Technology & Regulatory Council (ITRC) Draft Harmful Cyanobacteria Bloom guidance document was been sent out for review to the general ITRC membership, the EPA, DOE and other federal agencies. Angela Shambaugh, the Lakes and Ponds Program Cyanobacteria Expert, was a Team Leader for the development of this document, which provides lake managers with information and assistance in identifying, managing and preventing harmful cyanobacterial blooms (HCBs).

Lakes Greeter Program Training

The Lakes and Ponds Program has begun training Aquatic Invasive Species Greeters, who will be working this summer at the DFW Public Access Areas to encourage boaters to utilize "clean, drain and dry" practices as they move their boats between lakes in Vermont. So far, the Lakes and Ponds Program has trained over 250 greeters to complement the more than 30 grants to lake associations and municipalities that have been provided to support the greeter program.

Clean Water State Revolving Fund Intended Use Plan

The annual CWSRF intended use plan was issued two months after the target deadline, due to the impacts of COVID-19. Notwithstanding that delay, the "IUP" presents a prioritized list of grey and green water pollution control infrastructure that will be supported by VT's SRF in the coming year. In addition, the Plan established several categories of forward-looking additional subsidy to support the following: Natural Resources Restoration; Natural Resources Bridge Loans to support

conservation; CSO long-term control planning, and no-cost measurement and metering; and, support of efforts to develop decentralized wastewater capacity for under or un-sewered Vermont villages.

CWF Budget Process

Like all other states, Vermont is experiencing revenue shortfalls due to loss of business activity attributable to COVID-19. Given uncertainty in revenues to the Clean Water Fund, the Clean Water Board is carefully tracking revenues before recommending to the Governor funding authorizations. At their May 2020 emergency meeting, the Board elected to forward a revised FY21 recommendation that allows approximately ½ of anticipated CWF revenue for State fiscal year 2021, or \$7.4M, be made available for disbursement. During summer, after tracking revenue for the initial months of SFY21, the Board will re-convene to make recommendations for disbursement of the remaining anticipated revenues to the Fund. The Clean Water Initiative Program, VTrans, and VT AAFM will initiate grant program implementation for this first allocation once the General Assembly has adopted the recommendations in their final FY21 budget, expected this month.

New Dam Safety Rules

Act 161 of 2019 was passed to improve and maintain the condition of dams in Vermont. When this law was enacted, the Vermont Dam Inventory catalogued 696 dams under DEC jurisdiction, of which 163 are considered as significant or high hazard. Under the Act, Vermont is required to establish rules for the operation, maintenance, and registration of dams by July 1, 2020, and additional standards for dam construction, restoration, or removal by July 1, 2022. Vermont's new Dam Safety Rules are being presented to the Vermont General Assembly for final adoption this month.

Wetland Protection and Restoration Update

The Vermont Fish and Wildlife Department (VFWD) continues to make great progress with implementation of the wetland conservation and restoration initiative using EPA/LCBP funds. VFWD is proceeding with the acquisition of four projects highlighted in the last quarterly report including: (1) Plouffe in Colchester; (2) Derosia in Highgate; (3) Fitzgerald in Colchester; and (4) Connor in Addison. Closings for the Derosia and Connor projects have been delayed because of COVID-19 but are anticipated in the next few weeks, as is the Fitzgerald project. The Wetland Steering Committee also continued to advance six additional acquisition projects resulting in four new Purchase and Sale Contracts in sites ranging from Orwell to Panton. The magnitude of the projects being considered is exciting and if successful will result in 1270 acres being conserved and 740 acres restored or almost 60% of the land acquired. There is a healthy queue of prospective projects being evaluated by the project Steering Committee.

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NYSDEC Regional Director updates to the LCBP Steering Committee June 11, 2020

1. This week NYS Departments of Environmental Conservation (DEC) and Agriculture and Markets are observing New York State's seventh annual Invasive Species Awareness Week (ISAW). ISAW is an annual educational campaign featuring numerous statewide events focused on invasive species. New Yorkers are encouraged to participate in one of the virtual opportunities being offered during the 2020 ISAW. A [list of scheduled events](#) is available on the ISAW website.
2. On May 23, Paul Smith's College's Adirondack Watershed Institute, which operates DEC's Adirondack Aquatic Invasive Species Spread Prevention Program, began providing free boat inspections and decontaminations at nearly 100 locations across the region, including locations in the Lake Champlain Watershed. This includes the [boat washing station at the Adirondack Welcome Center](#) (DOT Rest Area) on Interstate 87 in Queensbury, Warren County. In 2019, 403 boats were treated at the Adirondack site, the most of any site in the Adirondacks. On Wednesday (6/10) afternoon boat launch stewards will be providing a boat washing demonstrating at this location for the media and others. Boat launch stewards educate boater and helps them observe New York's Aquatic Invasive Species Spread Prevention law, which prohibits invasive plants and animals on boats launching into the state's lakes, ponds and rivers.
3. On May 21, the Lake George Park Commission Boat Inspection Program began mandatory inspections of boats and trailers entering and leaving Lake George at seven locations around the lake including DEC's Lake George and Mossy Point Boat launches. This is the first full season with an inspection station at Mossy Point Boat Launch. An inspection station will be located at the Rogers Rock Boat Launch when the campground opens. (See next item.)
4. NY Outdoors is open. During the COVID-19 public health crisis, getting outdoors locally and connecting with nature (while social distancing) is a way to help maintain mental and physical health. DEC and State Parks recommendations incorporate guidance from the Centers for Disease Control and Prevention and the New York State Department of Health for reducing the spread of infectious diseases and encourage New Yorkers to recreate locally, practice physical distancing, and use common sense to protect themselves and others. In addition, DEC and State Parks launched a new hashtag - #RecreateLocal - and encouraged New Yorkers to get outside and discover open spaces and parks close to home. Both the [DEC webpage](#) and [Parks and Recreation webpage](#) are continually updated to provide guidance on outdoor recreation.



Department of
Environmental
Conservation

5. DEC and NYSERDA released proposed regulations to strengthen the Regional Greenhouse Gas Initiative (RGGI), the nation's first regional program to cap and reduce greenhouse gas emissions from the electricity sector.
 - a. The revised regulations would advance New York's portion of the 30 percent regional cap reduction from 2021 to 2030, ensuring that regional emissions are 65 percent below the starting cap level by 2030.
 - b. These emissions reductions support Governor Andrew M. Cuomo's nation-leading requirements under the Climate Leadership and Community Protection Act (CLCPA) to reduce greenhouse gas emissions 85 percent by 2050.
 - c. New York is going beyond many of its RGGI partner states by adding smaller peaking power plants that each have a capacity of less than 25 megawatts of power to the program.
 - d. Another key proposal is to create the Emissions Containment Reserve (ECR), a new feature designed to ensure additional carbon dioxide emissions reductions by auctioning fewer allowances in the event the cost of such reductions is less than anticipated.
 - e. The proposed regulations also simplify the program and ensure that reductions from power plants continue by removing all offset categories except for emissions from livestock operations. In addition, [proposed revisions to NYSERDA's regulations](#) advance that investment of proceeds from allowance auctions provide equitable benefits to disadvantaged communities, in accordance with the CLCPA.
 - f. NYSERDA's proposed regulations will be published in the State Register on May 13, 2020, opening a public comment period that closes on July 13, 2020. For more information about the CLCPA and the Climate Action Council, visit www.climate.ny.gov.
6. DEC is seeking angler feedback on a proposed plan to manage trout in inland streams. The proposed changes are designed to safeguard wild trout and expand fishing opportunities. The deadline for the public to comment on the draft plan is June 25, 2020. Significant aspects of the plan are the direct result of public meetings held with anglers in 2017, to identify desired outcomes for the State's numerous and diverse trout streams. The plan covers a broad spectrum of management areas and angler interests associated with trout stream management in New York. Major elements of the draft plan include:
 - a. Drawing a clear line between wild fish and stocked trout management;
 - b. Placing greater emphasis on habitat improvement;
 - c. Making management simpler and more understandable;
 - d. Eliminating unnecessary regulations;
 - e. Providing year-round fishing opportunities through the creation of a statewide catch-and-release season;
 - f. Extending the duration of stocking on select stream reaches;
 - g. Increasing the size of stocked fish;
 - h. Ensuring that each stocking contains some fish that are 12 inches or larger;
 - i. Improving the vigor of hatchery brown trout for increased survival;
 - j. Developing an interactive map for information on stream reach management and fishing access locations; and
 - k. Expanding outreach on the significance of wild trout populations and the water they inhabit.

The TAC met twice since the last Steering Committee meeting in April.

Reviews and Recommendations

- TAC reviewed and approved the interim report and workplan for the Water Chestnut Management Program.
- TAC received an interim report presentation for the New York Agronomy Program.
- TAC reviewed and approved the final report for the *Implementation of a Farm Phosphorus Management Optimization Web-based Tool (Farm-PREP) in the Vermont Portion of the Lake Champlain Basin* project. LCBP funds will continue to support hosting for the web-based tool through 2022.
- TAC discussed next steps for the upgrades to the Long-Term Monitoring Program that were approved by the Steering Committee. A sub-committee was formed to discuss deployment locations for the buoy and tributary monitoring systems. The sub-committee met on May 11 and agreed upon a ranked list of possible locations—they recommend deploying the buoy in Mallets Bay and installing the tributary monitoring station on the Lamoille River.
- TAC reviewed and approved an interim report and article manuscript for the *Improving flood risk datasets using a low-complexity, probabilistic floodplain mapping approach* project.
- TAC reviewed the interim report and workplan for the Lake Champlain Basin Program Boat Launch Steward Program.
- TAC began to discuss the *State of the Lake 2021* report with an informal review of the online version of the report, and a broad discussion of what should be kept, added, updated, or removed.
- TAC discussed the recommendations stemming from the recently published International Joint Commission Report, *Nutrient Loading and Impacts in Lake Champlain – Missisquoi Bay and Lake Memphremagog*, and how the TAC could work to move some of the report recommendations forward.
- TAC began brainstorming priorities for the FY21 technical budget, which will be discussed during the Steering Committee meeting.

Presentations

- Jason Scott, a UVM MS student and active Coast Guard member, presented his thesis research, Oil Spill Emergency Response Planning for Lake Champlain. Recommendations from this research will be moved forward by the Federal Partners Working Group: the creation of Environmental Sensitivity Index maps for Lake Champlain, and the compilation of existing hydrodynamic modeling for the Lake. LCBP staff are leading coordinating efforts, and TAC members have been invited to participate.
- Dr. Ellen Marsden from UVM gave a presentation entitled, *The Growth Evaluation and Standardized Assessment of Juvenile Lake Trout in Lake Champlain*.

The TAC will be on summer recess in July and August, and will meet next on September 2nd, 2020.



Champlain Valley National Heritage Partnership



Heritage Area Program Advisory Committee Report

June 11, 2020

CVNHP Website Update

Staff has collaborated to revise and update the [Champlain Valley National Heritage Partnership \(CVNHP\) website](#). Staff continues to develop content for the site, which includes information on the heritage area, recreation opportunities, and links to other resources.

Artist-in-Residence Program

The Lake Champlain Basin Program (LCBP) issued a Request for Pre-Proposals for Artist-in-Residence (AiR) programs in the Lake Champlain Basin last fall to support development of sustainable AiR programs that will recruit artists to obtain and use scientific data, cultural trends, or historical facts to increase interpretation of natural resources within the Lake Champlain basin.

Following a peer-review process of the pre-proposals, the LCBP Executive Committee reviewed the AiR Record of Decision (ROD) at its February meeting and directed staff to request full proposals from four organizations: two from Vermont; two from New York. The review team met on June 9 to discuss their reviews and rankings of those proposals. The ROD developed from this meeting will be discussed by the LCBP Steering Committee today.

COVID-19 in the CVNHP

The residents of the CVNHP responded well to the instructions issued by New York Governor Andrew Cuomo, the Premier ministre du Québec François Legault, and Vermont Governor Phil Scott pertaining to the COVID-19 pandemic. As of June 9, Vermont has only one COVID-19 hospitalization and the state is beginning to open businesses and public places. The North Country of New York is also carefully reopening; however, the Canadian border remains closed until at least June 21, 2020.

The 115 museums, historic sites, and nature centers within the CVNHP region are mostly in a state of uncertainty when it comes to opening to the public in 2020; however, the [Shelburne Museum](#), the [Adirondack Experience: The Museum on Blue Mountain Lake](#), the [Clinton County Historical Association](#), and the [Lake Champlain Maritime Museum](#) have announced that they will not open this year. Other large, marquee heritage sites, including [ECHO](#), [Leahy Center for Lake Champlain](#), the [Mont-Saint-Hilaire/Gault Nature Reserve](#), and [Fort Ticonderoga](#) plan on opening with limitations in July.

Many CVNHP-partner museums responded to the closures and delays with a wide array of online interpretive presentations:

- The [Adirondack Experience: The Museum on Blue Mountain Lake](#) offers [online activities](#) and has a searchable database of [70,000 objects and ephemera](#).
- The [American Museum of Fly Fishing](#) offers virtual exhibitions
- The [Bennington Museum](#) offers virtual presentations of galleries and objects
- The [ECHO, Leahy Center for Lake Champlain](#) offers [ECHO-at-Home Learning](#) and other online activities.
- The [Fleming Museum](#) at the University of Vermont offers [Fleming From Home](#) and a searchable collection.
- [Fort Ticonderoga](#) offers online interpretation via the [Center for Digital History](#) and has live, online [events](#).
- The [Henry Sheldon Museum of Vermont History](#) in Middlebury has virtual tours and a searchable archive.
- The [Lake Champlain Maritime Museum](#) hosts a [Digital Museum](#) that includes exhibits, 360° Panoramas, and virtual shipwreck tours.
- The [Middlebury College Museum of Art](#) is offering [3-D tours](#), including the *Votes...for Women?* suffrage exhibit.
- The [Rokeby Museums](#) offers a virtual tour of the [Free & Safe: The Underground Railroad in Vermont](#) exhibit.
- The [Rutland Historical Society](#) has online exhibits, galleries, and a searchable collection.
- The [Saratoga Springs History Museum](#) offers video of museum programs and tours of Saratoga Springs.
- The [Shelburne Museum](#), offers an array of activities on their [Museum from Home](#) program, which includes weblogs, art challenges, video tours, and [Spotify playlists](#) inspired by the collections.

Federal and state cultural facilities remain shuttered. [Saratoga National Historical Park](#) and the [Vermont](#) and [New York state historic sites](#) are closed, but their grounds remain open to the public. Canada's [Fort Chambly National Historic Site](#) (NHS) is completely closed until at least June 20, 2020. [Fort Lennox NHS](#) is closed due to renovations. The tow path along the [Chambly Canal NHS](#) is open to recreation, but the canal remains closed.

Many regional recreation trails, including the [Burlington Bike Path](#) and the [Adirondack Rail Trail](#) are experiencing high use. All [Adirondack Park](#), [Green Mountain National Forest](#), and state park/forests trails are open for day use with social distancing protocols in place. While hiking is encouraged, backpacking is not. Shelters and privies on the [Appalachian National Scenic Trail](#) (NST) and [Long Trail](#) NST are closed. Lean-tos on the [North Country](#) and [Northville-Lake Placid Trail](#) NSTs in the [Adirondack Park](#) are open to single-family use.

The CVNHP work continues. Working from home, we are managing 19 open grants and developing workplans for 21 new grants awarded in April. Staff is also developing a map of the

CVNHP that highlights the heritage sites associated with the Semiquincentennial of the American Revolution, which begins in 2025. Staff is working closely with partners to accommodate delays associated with COVID-19 restrictions on the four 2020 CVNHP Internship Grants, which rely on interns working in close-proximity to museum staff. The four 2020 Collections Grants, which fund the inventory, conservation and interpretation of museum artifacts and ephemera, are largely unaffected by the restrictions associated with the pandemic.

Staff is also working with partners on the nine 2020 CVNHP Local Heritage, Special Program, and *Making of Nations* grants. The focus of most of these grants is the 100th anniversary of the 19th Amendment to the U.S. Constitution. Staff is collaborating with grantees and their partners to find alternatives to the festivities planned for 2020. Some alternatives include moving the events and programs to 2021, hosting them outdoors to ensure “social distancing,” providing online programs using social networking and video.

The LCBP is hosting a series of “how-to” workshops with a professional videographer who will teach participants from 22 heritage and recreation organizations how to effectively film, edit and display videos online.

The LCBP also revised the CVNHP website to make it more interactive and connect residents to some of the activities they can safely participate in, including visiting the 290 wayside exhibits the LCBP & CVNHP have developed in the past 20 years. The new website will be a work in progress over the summer.

Staff continues to develop new wayside exhibits providing free technical support, design work, and French translation for bilingual panels. A dozen new interpretive panels are in various stages of the design phase and a field inventory of the 290 existing exhibits is underway. The LCBP team is also developing a series of interpretive banners that focus on the suffrage movement. Panels on the international movement; the symbiotic temperance movement; suffrage in each of the CVNHP jurisdictions: New York, Vermont and Quebec; and the modern women’s right movement will be featured outdoors at state parks and historic sites, museum properties, and town greens in the summer of 2020.

Québec Citizens Advisory Committee June 2020 Highlights

3 projects to be submitted to the
«PROGRAMME DE SOUTIEN RÉGIONAL AUX ENJEUX DE L'EAU (PSREE)»

- Proposals to be sent by June 12
 - Decision by year end
 - Final report – January 2022
 - Must address at least one issue identified in OBVBM's «Plan Directeur de l'eau» PDE
 - Up to \$200K at 75%
-
1. Boat washing station
 - Municipality of Bolton East – Will serve most of Missisquoi North
 2. Action Plan for Cleaning Lake Parker
 - Phase 2 of the regional project: Restoration of Lake Parker Watershed
 3. Project for the development a Binational Mass Balance for Phosphorus Imports and Exports in the Missisquoi Bay Watershed
 - Identified as a research priority in the recent IJC water quality report for Missisquoi Bay
 - Focusing on Rock river watershed
 - Many challenges and obstacles
 - i. Common protocols
 - ii. Data identification and collection
 - Will help clear the way for total Missisquoi bay watershed Mass Balance
 - Wide interest and support from the scientific and management community from both sides of the border



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Lake Champlain Basin Program Steering Committee
USDA NRCS UPDATE - Vermont

June 2020

- 1) All field offices will be going through a 3 part "phase in" to return to normal operations, based on the number of COVID cases in the county. All offices in Vermont, with the exception of those located in Windsor and Chittenden County, are in Phase 1, which allows up to 10 staff in the office at the same time. No visitors are allowed. Windsor and Chittenden County offices will be re-evaluated on a weekly basis to determine when the gating criteria has been met to move to Phase 1. It will take a minimum of 6 weeks to move through the phases to return to normal operations, if all goes well.
- 2) All field staff continue to make field visits as needed to conduct site evaluations and to develop conservation plans.
- 3) Field staff are currently completing resource assessments and ranking for both EQIP and CSP. We expect to make selections for funding by mid-July, and all contracts will need to be obligated by Sept. 30. Despite the economic impact of the pandemic, there is no shortage of applications on file for both programs (801 applications for EQIP, and 48 for CSP), indicating an ongoing and sustained interest in conservation.
- 4) To date, 515 conservation practices have been certified as complete this year in Vermont on prior year contracts.
- 5) An RFP for Conservation Innovation Grants (CIG) closed on June 6. We will be assembling a technical team to review all applications and make recommendations for funding. Successful applicants will be notified by late August. Up to \$500,000 is available, with a maximum of \$250,000 per application.
- 6) At the national level, an RFP for RCPP Alternative Funding Arrangement closed on May 29. We are aware of at least one application from Vermont, that if approved for funding will focus on building and implementing a payment for ecosystem services program.
- 7) Three separate RFPs will be going out soon to support the following:
 - a. Technical Assistance to support implementation of existing conservation plans funded through the Vermont DEC RCPP Lake Champlain project.
 - b. Technical Assistance to support development and implementation of grazing management plans.
 - c. Training of NRCS and partner staff on basic agricultural principles – Ag 101 Course for entry level employees who do not already have an agricultural background.

U.S. Fish and Wildlife Service
Updates for Lake Champlain Basin Program Steering Committee
June 11, 2020

Hatcheries:

As mission essential work, the hatcheries remained open during Covid 19 Stay Home Stay Safe orders.

Dwight D. Eisenhower National Fish Hatchery (DDENFH)- The Spring stocking season ended on June 8 with the release of spring fingerling brook trout into remote ponds in the Green Mountain National Forest. In all, the hatchery has released over 305,000 landlocked salmon, brook trout and lake trout in 2020. DDENFH is currently raising additional salmon for 2021 stocking in the basin including those supporting research in the Saranac, Boquet and Winooski Rivers. The Saranac salmon will be stocked into net pens to test the effectiveness of acclimating and imprinting the fish before release. The Winooski and Boquet River salmon will test the success of two different broodstocks, thiamine deficiency tolerant group and maximum genetic diversity group. The hatchery will begin its Hatchery Modernization review on June 11. The rehabilitation of the water treatment system, delayed due to Covid-19, should to begin in late June.

White River NFH (WRNFH)- Continues to maintain and develop landlocked Atlantic salmon and lake trout broodstocks to support programs on Lake Champlain and Lake Ontario. This year the salmon produced eggs eventually to be used in the Saranac River and Winooski River studies. Some of the retired 2016 salmon broodstock will be retained to stock in the Winooski River in the fall. These fish will test the success of adult stocked spawners contributing to natural reproduction. The remaining retired broodstock at the WRNFH were stocked into public waters to support recreational fishing.

Salmon Restoration

- The salmon restoration program is working closely with the hatcheries on the projects described above. Spring field work that was on hold because of Covid 19 restarted June 1. Early field work includes surveying the Boquet River for naturally reproduced salmon fry and locating tagged salmon in the Winooski River that overwintered above the dams.

Sea Lamprey control:

- The Sea Lamprey Control Program resume field work on June 1.
- They did not trap 7 rivers that would normally be trapped this year: 1 in QC, 2 in NY, 4 in VT.
- The impact of these untrapped rivers will be observable when we measure fall 2025 wounding rates on salmon and lake trout
- Plans for treatments in the fall are still in place and expected. These are considered mission critical by the state.
- Work continues on the repair of the Great Chazy dam and the construction of the LaPlatte River Barrier. Both are expected to be completed by the end of this year and prevent lamprey spawning next spring and into the future, upstream of those two sites.

Riparian/Wetland Restoration/Aquatic Connectivity:

- Habitat restoration staff resumed field work on June 1.
- USFWS purple loosestrife *galerucella* beetle propagation and release program was greatly curtailed in 2020. On June 6 USFWS staff collected 1000 adult *galerucella* beetles from a site in Colchester and released them at restoration sites in the Burlington Intervale.
- Wetland restoration staff were able to continue to work on environmental for projects scheduled for construction in 2020. Staff continued to coordinate with NRCS and other partners on project delivery. Five projects totaling 300 acres scheduled for construction in 2020. USFWS staff are currently working with USDA archeologist to complete cultural resource field assessments for all sites. Pre-construction site visits will begin in July.
- Riparian restoration staff worked remotely with planting contractors, state and Federal planners and landowners to implement riparian buffer tree planting projects. Some projects have been cancelled due to impacts of the COVID-19 on volunteers. As independent planting contractors were able to resume work in time for the planting season, the majority of planting projects originally on the schedule were completed. USFWS staff and partners are currently reviewing sites planted in April and May. Final numbers for projects and stems planted are due out in late June. USFWS staff will be working with local project partners to implement post-planting stewardship and maintenance activities (invasive control, herbaceous control around new plantings, deer exclusion fence/repellent, etc.) in the coming months.
- All direct seeding trials are still on schedule with the majority of work taking place in late May and June. Intervale staff were able to return to fieldwork in early May, this allowed direct seeding trails to stay on track. Over the next 3 weeks, Intervale and USFWS staff will collect native seed (willow, aspen, silver maple, cottonwood, etc.) for seed trial sites. The trials will be monitored throughout the 2020 growing season. The trials, in combination with herbaceous control techniques, will help inform new ways to establish native trees and shrubs in a restoration setting.
- Aquatic Connectivity staff continue to work with project partners on culvert replacement and dam removal projects slated for 2020. All projects are still on schedule. On May 19th the USFWS and VTFWD met with the Lewis Creek Association (LCA) to discuss aquatic passage opportunities and riparian restoration to benefit brook trout and wood turtle. LCA has temperature data and culvert assessments for a large portion of the watershed. Over the next few month USFWS and VTFWD staff will work with LCA to refine project opportunities. USFWS staff participated in the May 22nd NY Lake Champlain Dam Task Force meeting and June 9th VT Dam Task Force meeting.

Missisquoi National Wildlife Refuge:

- The refuge has submitted paperwork to request phased opening of refuge operations to include field work and limited office staff.
- Refuge staff continue to focus on teleworking with one employee reporting to the field daily.
- Herpetologist Jim Andrews completed surveys for spotted turtles on the refuge, none were found although Jim did document many other species during his surveys.
- The refuge began working on an expanded hunt program in collaboration with the State. An environmental assessment, hunt plan and compatibility determination are being drafted. We expect to release the drafts in early 2021 for public review and comment.
- The refuge cancelled resident volunteers scheduled to arrive in early June. These two couples were recruited to work our Visitor Contact Center which is currently closed and likely to remain so for several more weeks.
- Contract invasive species control, primarily for poison parsnip, began on June 2.
- The refuge continues to see regular public use including a large number of anglers launching from the refuge's boat ramps for the opening of walleye season.

Migratory Birds

- On June 5, 2020, the U.S. Fish and Wildlife Service (Service) announced the publication of a [draft environmental impact statement \(EIS\)](#) and [draft rule](#) inviting [public comment](#) on proposed management of conflicts associated with double-crested cormorants. As part of the continued effort to address conflicts between cormorants and wild and publicly stocked fisheries, and aquaculture facilities, the draft EIS evaluates alternatives within the Service's authority to implement measures that address conflicts associated with cormorants within the contiguous 48 United States.
- The Service developed the draft EIS in cooperation with the United States Department of Agriculture, Wildlife Services. The draft EIS evaluates five separate alternatives. In all analyzed alternatives in the draft EIS (except the no action alternative), maximum allowable take would be authorized up to 123,157 cormorants per year, nationally. This is an increase of maximum allowable take, compared to 2017-2020. This proposed level of authorized take was developed using a Potential Take Limit model, which allows the Service to integrate biological and policy considerations into the decision-making process of authorizing the take of cormorants to manage conflicts.
- The draft EIS also identifies a preferred alternative, which would establish a new permit option under 50 CFR part 21 (special double-crested cormorant permit). This proposed special permit would be available to state and tribal wildlife agencies in the contiguous 48 United States to manage conflicts specifically associated with double-crested cormorants on state or tribal-managed lands. This preferred alternative is reflected in the draft rule that accompanies the draft EIS. Under this proposed new permit, the Service would authorize states and tribal wildlife agencies to conduct lethal take of cormorants on lands within their respective jurisdictions. A new special permit for interested states and tribes would complement existing measures to address conflicts with cormorants to protect human health and safety, personal property and threatened and endangered species.

Agency of Agriculture Water Quality Partner Update June 2020

This update is meant to inform partners about the following items:

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RAP Implementation

RAP Revisions for Subsurface Tile Drainage

The Tile Drainage revisions to the Required Agricultural Practices went into effect November 23, 2018, please reference our website for the most recent [RAP Rulebook](#).

There is an ongoing state funded effort to research and evaluate nutrient content of effluent from tile drain outlets, which at this point, includes more than 1,000 samples statewide. There was a Tile Drain Advisory Group meeting in December to review initial results from this sampling effort.

CSFO Certification Status and Deadlines

The official deadline for CSFO Certification was January 31, 2020. All CSFOs are required to submit this form **annually** by January 31. A total of 208 CSFO Certifications for 2020 have been received to date.

Messaging around the need to certify to meet regulatory requirements for operations meeting the threshold of a CSFO occurred in Agriview, in addition to being sent directly to farmers via email or post. Direct outreach was sent to any operation that completed a CSFO Certification last year.

Go to agriculture.vermont.gov/csfo for more information or to access the CSFO Annual Certification Form. As you are working with farmers, please remember to mention this requirement, it is a prerequisite for all grant program enrollment as well.

Process Development

Specific variance processes have been developed that include:

1. Frequently Flooded Field Areas: For the reclassification of incorrectly mapped fields and/or the variance process for circumstances which made a farmer unable to meet manure application or cover cropping dates as outlined within the RAPs. We have experienced inconsistent mapping of frequently flooded fields statewide and are in the process of re-assessing this process.
2. Stacking Site Variance: Go to agriculture.vermont.gov/rap, or directly to the form [here](#) to request a variance for any of the following items:
 - a. Siting Setback for Field Stacked Manure or Compost per RAPs § 6.02(f)
 - b. Siting Setback for Composting of Animal Mortalities per RAPs § 6.08(d)
3. Waste Storage Facility Variance: Alternative setbacks requests must be approved for the construction of Waste Storage Facilities that may not comply with the RAP setbacks, as outlined in Section 9 of the RAPs. To request an alternative setback, complete the WSF RAP variance request form. Please contact VAAFM to receive the appropriate form.
4. Winter Manure Spreading Exemption: Exemptions for winter manure spreading are available for emergency situations. Farms interested in an exemption should contact their local farm coordinator to discuss the process of applying for a variance during the winter manure spreading ban. LFO's are not allowed to receive spreading exemptions. [Water Quality Contact and Regional Staff Maps](#)
5. Farm Structure/Farm Determination Form: There are limits on the application of municipal land use regulations on farm operations regulated under the RAPs, including the construction of farm structures. When asked, the Agency can issue a determination on whether the operation meets the minimum thresholds for the applicability of the RAPs and that the activities on the parcel are farming activities. The Agency can also issue a determination that an existing or proposed structure utilized by the operation is a farm structure and therefore exempt from municipal building fees and permitting. Pursuant to Section 9 of the RAPs, farm operators must notify the municipality regarding the construction of a farm structure, and meet municipal setbacks applicable to the structure, unless the Agency has issued a variance. To request a farm or farm structure determination, or to engage in the variance process, please complete the Agency's [Farm Determination Form](#).

6. NMP Alternative for Vegetable Producers: This NMP alternative has been developed in collaboration with UVM extension and the Vermont Vegetable and Berry Growers Association and provides an alternative standard for nutrient management planning on vegetable farms. the “Comprehensive Soil Health Standard”, is required for Certified Small Farm Operation (CSFO)—over 50 acres in annual vegetable production. This document was developed to help vegetable farmers have a simple, practical mechanism for complying with the RAPs. The agency approved this document in lieu of the NRCS 590 Nutrient Management Standard (which veggie farms may use for compliance if they already have completed one). Please contact Rebecca Maden for more information at Rebecca.Maden@uvm.edu .

Variance processes currently in development include:

7. Site Specific Buffers: This variance process is in the developmental phase by VAAFM and will provide a process for farmers to apply for a variance for buffer widths specific to a particular field topography.

Variance processes remaining to be developed include:

5. RAP Grazing management plans
6. Allowing grazing in areas where GMP are not effective
7. Alternatives to the floodplain maps
8. Seasonal spreading plans
9. Prospective Business Management Plan to determine whether RAPs apply
10. Alternative cover crop planting dates
11. Removing a farm from SFO certification

Water Quality Grant Programs

BMP Grant Program

The priority deadline for applications to receive technical and financial assistance through the Agency of Agriculture’s [Best Management \(BMP\) Program](#) was **April 1, 2020**. Since April 1, 2019, the agency has received 102 applications to the program for assistance of varied types.

While BMP applications can be submitted at any time, applications received prior to April 1 will be given priority consideration for financial assistance in 2020. Due to the increased demand for BMP assistance, submission of an application does not guarantee grant funding.. Applicants will receive a response from the BMP Program regarding their application status prior to August 2020.

Information about our services and **a new application for Engineering TA & FA** (previously the BMP application) can now be found online at [this link](#).

Take note that there are three services that a farmer can apply for to address water quality concerns:

1. **EQIP-Assist** – Applications reviewed on a rolling basis, farmers / planners are encouraged to submit an application when a farmer has ranked for an EQIP contract
2. **Technical Assistance** – Application reviewed on a rolling basis, unless otherwise noted
 - a. Design Services for a Farmstead BMP Project – April 1st application deadline
 - b. Engineering Consultations
 - c. Water Quality Compliance Consultation
 - d. State Permitting Consultation

- e. State Variance Consultation
- 3. **Financial Assistance** – Priority given to applications received by April 1st, only Farmstead BMP projects that have a preliminary design and cost estimate prepared by a state engineer or by an independently hired design professional eligible to apply.

We highly recommend that farmers apply for technical assistance as soon as they are aware of a water quality concern that they would like to resolve. State Agricultural Engineers can assist in preparing a farmer to apply for design services before the next Farmstead BMP Program ranking cycle with an annual deadline of April 1.

Enrollment for design services and financial assistance in the Farmstead BMP Program is typically a two-year process including planning and design in year one and granting and implementation in year two.

If you have any questions or concerns, please contact your regional State Ag Engineer. Contact information can be found on the [BMP webpage](#).

CEAP Grant Program

The [Capital Equipment Assistance Program \(CEAP\)](#) was opened for applications in the Fall of 2019 for submission of applications by November 1, 2019. A total funding request of \$2.6 million across 70 applicants was received. A total of 27 recipients were selected for \$987,600 in financial assistance awards. State FY 2020 CEAP recipients are listed below:

The agency anticipates offering this program in the fall of 2020, however, this will be dependent upon funding availability.

CREP Program

The [Conservation Reserve Enhancement Program \(CREP\)](#) has dealt with land eligibility issues for the last two years, resulting in no new contracts. This very long process is finally coming to resolution.

State CREP Coordinators have been given guidance on how to enroll new projects in the CREP program. Landowners in Vermont are now eligible for the program however annual rental payments from the Farm Service Agency (FSA) will be reduced by 25% due to Vermont's buffer requirements under the RAP's. Landowners in Vermont are now eligible to petition their County Committee and the FSA State Committee to send a waiver request package to the Deputy Administrator for Farm Programs (DAFP) to ensure it is not contrary to the purposes of the program. Once the first few projects are approved via this process, we will have a better sense of how the approval process will operate.

CREP not only can pay for 100% of the grazing infrastructure necessary to exclude livestock from the buffer but also has upfront and annual payments to producers which can make the program very attractive.

For additional information or to sign up for Vermont's CREP, contact your local Farm Service Agency, or contact Vermont Agency of Agriculture CREP Coordinators:

Ben Gabos
802-461-3814
Ben.Gabos@Vermont.gov

Phillip Wilson
802-505-5378
Phillip.Wilson@Vermont.gov

Farm Agronomic Practice Program

Additional funding for financial assistance under this program has been secured through an agreement with funding through the Lake Champlain Basin Program through Vermont Agency of Natural Resources Department of Environmental Conservation. This additional funding has augmented the program's existing funding and enabled an increase in agronomic practice implementation across Vermont.

Program Details and Deadlines:

Applicants are advised to apply online due to COVID-19: agriculture.vermont.gov/fap

- Grants are limited to \$8,000 per farm operation per State fiscal year (July 1 – June 30).
- Funding rates may change based on program demand and available funding.
- Activities that occur prior to FAP application approval cannot be compensated for **and all applications due at least one month (30 days) prior to practice implementation.**
- **Rotational Grazing applications are due JUNE 15, 2020**
 - Rotational Grazing Applications must include a copy of the applicants grazing plan.
 - Required elements of a grazing plan are: (1) Grazing Plan Description and Overview, (2) Maps and Acreages submitted for payment under this program, (3) Grazing Infrastructure (4) Recovery and Rest Period Considerations, and (5) Animal Numbers and Forage Requirements. If the applicant has a full Grazing Plan developed with a Grazing Specialist, that may be submitted. Otherwise, use the VAAFM [Grazing Plan Template](#), which can either be filled in on your computer or printed and filled in by hand, and then mailed to the Agency.
- **Cover Crop applications are due AUGUST 1, 2020**
- All other practices under FAP will be reviewed in order of receipt.

Agricultural Clean Water Initiative Program

An FY2020 funding round was offered to eligible applicants for this program and initial approvals have been awarded to variety of partners statewide. These include expansions to existing grant agreements for education, outreach, and technical assistance, as well as new awards for organizational development and research. Some of the organizations receiving funding include:

VT Vegetable & Berry Gowers Association	\$40,000.00	Comprehensive website for the VVBGA
University of Vermont	\$1,013,337.00	Development and Launch of Discovery Acres Research Site, Agricultural Conservation Equipment Program and GoCrop Modifications
Addison County River Watch Collaborative	\$17,000.00	Expanded Communications and Collaboration with Agricultural Landowners and Partner Organizations
University of Vermont	\$1,256,676.00	Comprehensive UVM Extension Programming for Education and Outreach, Technical Assistance with the Agricultural Business Team, Vegetable and Berry Team, Northwest Crops Soils Team as well as Champlain Valley Crop, Soil and Pasture Team – includes two-year

		continuation of Agronomy and Conservation Assistance Program. Organizational Development support to hire a Grazing and Livestock Program Coordinator.
Poultney Mettowee Natural Resources Conservation District	\$170,000.00	Continuation of Technical Assistance in South Lake Basin with the Agronomy and Conservation Assistance Program

Outreach and Events

If your organization is hosting an event and you would like to offer water quality educational credits for attendees, please apply at least 30 days in advance to receive approval for those WQ credits. The credit requirements and directions can be found here: agriculture.vermont.gov/water-quality-educational-credits

If there are events you wish to have advertised in Agriview, the Agency's Facebook, or online calendar, please email AGR.WaterQuality@Vermont.gov with the details of your event (WQ credit applications will automatically be advertised).

If you have farmers willing to tell their water quality story, the Agency is always looking for folks to feature in Agriview! You can reach out to Sonia.Howlett@Vermont.gov to refer farmers, or if you have a story you have written - we would love to feature it!

Tactical Basin Planning

The Vermont Agency of Agriculture, Food & Markets (AAFM) collaborates with the Vermont Department of Environmental Conservation (DEC) Tactical Basin Planners in the development, tracking, and reporting on the agricultural sections of tactical basin plans in Vermont.

Recent work includes a team effort between AAFM and DEC staff to create an agricultural section template and an agricultural section development process to improve coordination of data collection and analysis, and tracking of agricultural strategies and their implementation in each tactical basin plan across the State. As part of the process, AAFM staff attend agricultural workgroups to inform and provide feedback on the development and implementation of agricultural strategies outlined in each respective tactical basin plan.

Current Plans underway include:

- The North Lake Champlain (Basin 5), and the Upper Connecticut (Basin 16) are in the final stages of updates this year.
- The final [Ompompanoosuc, Stevens, Waits, Wells River \(Basin 14\)](#) plan is currently open for public comment until June 19th
- The Battenkill, Walloomsac, Hoosic Rivers (Basin 1), Missisquoi Bay (Basin 6), Lamoille River (Basin 7), and the West, Williams, Saxtons (Basin 11) will begin updates this year.

Payment for Ecosystem Services (PES) Working Group

Act 83 of 2019 directed the Secretary of Agriculture, Food and Markets to convene a Soil Conservation Practice and Payment for Ecosystem Services Working Group (PES Working Group). The purpose of this

Working Group is to recommend financial incentives designed to encourage farmers in Vermont to implement agricultural practices that improve soil health, enhance crop resilience, increase carbon storage and stormwater storage capacity, and reduce agricultural runoff to waters.

The PES Working group met five times from September 2019 - January 2020. On January 15, 2020 the PES Working Group submitted the [Soil Conservation Practice and Payment for Ecosystem Services Working Group Report](#) to the Vermont Legislature outlining the results of their discussions up to this point. This report emphasized the Working Group's decision to focus a PES system in Vermont on soil health, outlined some of the key steps and decisions that would be necessary to implement such a system, highlighted the need for ongoing research, and requested funding and permission to continue meeting in 2020 and 2021.

Further information regarding the PES Working Group, including the report that the Working Group presented to the Legislature, is available at the following website: agriculture.vermont.gov/pes

For any questions about PES Working Group, please email AGR.WaterQuality@Vermont.gov.

Partner Database

The long-awaited Partner Database is live and fully functional, in addition to a [Quality Assurance Project Plan \(QAPP\)](#) for reporting information into the database. The Agency has completed trainings for all partners involved in providing technical assistance to farmers in Vermont. The goal for this year's work is to begin to include and report farmer-funded (non-state or federally cost-shared) conservation practices through the Partner Database in order to capture estimated nutrient reductions occurring as a result of these practices. The process and documentation for Conservation Practice Survey (CPS) work is actively being developed with the Conservation Districts and UVM Extension for this season.

Forms and documents for the Partner Database can be found on our webpage: agriculture.vermont.gov/agricultural-clean-water-initiative-program/partner-database

Any questions about the Partner Database, or requests for trainings can be forwarded to Judson.Peck@vermont.gov.

Vermont Phosphorus Innovation Challenge

VPIC was announced in February 2018 as an X-Prize style competition to harness creative solutions to address phosphorus pollution in Vermont. VPIC complements ongoing, essential work to install conservation measures and best management practices to reduce phosphorus losses from farms and in stormwater runoff from developed lands. These new technologies aim to make existing protections even more effective.

Of the 27 initial VPIC applicants, six groups were selected for initial funding awards. Beginning in September 2018, awardees engaged in technology prototyping and business case development, honing their technologies for phosphorus recovery and researching the market potential for the extracted nutrients. Over the summer, field visits were made to each group to monitor progress on implementation and to further understand the respective technologies. The final component of Stage Two for VPIC was the submission of a final business report in September 2019.

These reports included a detailed business plan describing the method, process and costs for full implementation; the proven ability of the technologies to recover phosphorus; the potential revenue streams associated with recovered phosphorus; and an explanation of the suitability of technology or practice to address Vermont's existing phosphorus challenge. The business plan also described additional available funding and investments outside of state resources to help fully scale implementation of each proposal. Submission of this report qualified participants to move on to Stage Three of the VPIC.

Following a thorough review of the reports, five projects were selected for further development on November 8, 2019. Each awarded project is unique and proposes an effective and innovative solution to address the phosphorus pollution that impacts water quality statewide.

For more information on VPIC please visit:

[agriculture.vermont.gov/Vermont Phosphorus Innovation Challenge](http://agriculture.vermont.gov/Vermont_Phosphorus_Innovation_Challenge) or contact Kaitlin Hayes at (802) 622-4112 or Kaitlin.hayes@vermont.gov

Vermont Environmental Stewardship Program

The Vermont Environmental Stewardship Program (VESP) is currently under a pilot program, in which 8 farms of diverse types, sizes and locations are involved. VACD planners conducted field work, soil sampling and gathered the necessary information to evaluate a variety of crop and pasture fields using NRCS's Resource Stewardship Evaluation Tool (RSET). This web-based tool integrates multiple NRCS planning tools into one—evaluating management practices across five natural resource concerns (soil management, water quality, water quantity, air quality and wildlife habitat). VAAFM is currently assessing the results from RSET to determine if the national stewardship standards are appropriate for Vermont's landscape. The pilot program will also evaluate other assessment tools, data collection methods and workload assessment to fine-tune the full program before launching.

[Learn more about the 2020 VESP Pilot Program on our website.](#)

Reports

Since January 1, the following reports have been released from VAAFM:

- FY2019 [Annual Report on Agricultural Water Quality Financial and Technical Assistance](#)
- FY2019 [Education and Outreach One Page Report](#)
- FY2019 [Grants to Farmers One Page Report](#)
- FY2019 [Inspection and Enforcement One Page Report](#)

Each One Page Report listed above has been included as an attachment to this document.

Additionally, the FY2019 [Vermont Clean Water Initiative Performance Report](#) is available through ANR DEC Clean Water Investment Division.

Any questions or concerns? Don't hesitate to reach out to any of us here at the agency, 802-828-2431.



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Updates for Lake Champlain Basin Program June 2020 Steering Committee Meeting

- NEIWPCC Events and Operations
 - Shortly after the April Steering Committee meeting, we [launched](#) our new brand and [strategic plan](#). This plan will help us focus our priorities, align our efforts, and make best use of the resources at our disposal. We have a new logo and a new twist on our name. We know that our name has presented a challenge in the past—and we have heard lots of versions over the years! After extensive research, we have decided to embrace our acronym, NEIWPCC, as our name. From now on, refer to us as “NEIWPCC” in spoken and written settings. Say goodbye to all of those old versions of our name. And say hello to: [NŪ-Ē-PĬK].
 - NEIWPCC is maintaining a [resource page](#) to support our states, colleagues, and workgroup members during the pandemic. The page includes resources from federal and state agencies related to safety procedures, field protocols, and other guidance.
 - NEIWPCC is now offering live, remote training sessions—in two- or three-hour mini-classes—where wastewater operators in New England and New York can receive training contact hours. TCHs approved in ME, MA, NH, and VT (approval pending in NY). See our [training calendar](#) for more information.
- Some of NEIWPCC’s LCBP-specific work:
 - Funding applications
 - GLFC—Application submitted for \$664,500
 - EPA—Application being prepared for \$5,301,379
 - Hiring Processes
 - Seasonal hiring: Hired 11 boat launch stewards and 1 e&o steward and facilitated completion of hire packets
 - New positions pending:
 - LCBP CAC Coordination position
 - NY State Coordinator
 - Contractual Processes (as of 6/4/2020)
 - 65 agreements totaling \$2,376,304 drafted since January 1, 2020
 - Quality Assurance Project Plans approved





OUR WORK

NEIWPCC is a regional commission that helps the states of the Northeast preserve and advance water quality. Our work and impact fall into five interconnected categories:

1

CONNECTIONS

We engage and convene water quality professionals and other stakeholders across the Northeast to collaborate on clean water and environmental science challenges across shared regions, ecosystems, and areas of expertise.

2

PROTECTION

We conduct research into water-related topics, monitor environmental factors, and fund such work by others. We also implement and fund environmental restoration and other on-the-ground projects.

3

TRAINING

We develop, coordinate, and conduct training courses that serve water quality professionals regionally and nationwide.

4

EDUCATION

We fund and/or staff programs that engage the public through events, exhibits, web and print publications, and other outreach activities.

5

ENGAGEMENT

We actively represent the interests of member states at meetings with federal and state officials and in regional and national water and wastewater associations.

MISSION

To advance clean water in the Northeast through collaboration with, and service to, our member states.

VISION

Clean and sustainable water throughout the Northeast.

VALUES

Leadership • Collaboration
Education • Service • Science



CRITICAL OBJECTIVES AND STRATEGIC GOALS

The Critical Objectives and Strategic Goals outlined below were developed by our commissioners and staff. They reflect our current regional and national activities and guide our efforts into the future.

OBJECTIVE

FUNDING

Build a sustainable funding model that allows us to continue to deliver on our mission while expanding the regional and national impact of our work.

GOALS

- Collaborate with member states to fund additional initiatives
- Build and strengthen partnerships to address the funding requirements associated with creating new/maintaining aging infrastructure
- Collaborate with state and federal partners to make efficient and effective use of available resources

OBJECTIVE

WORKFORCE DEVELOPMENT

Deliver programs and services that attract and retain a diverse, talented group of water quality professionals to our staff, as well as to the field as a whole.

GOALS

- Build a more diverse and inclusive water quality workforce
- Draw upon our organizational values to strengthen culture and create a sense of community for staff
- Recruit young professionals to the staff and to the field
- Offer online continuing education courses to support the needs of rural member states and to expand national reach
- Standardize external training programs across the Northeast around shared best practices
- Develop youth education programs that support workforce development and awareness objectives

OBJECTIVE

ENGAGEMENT

Use our data, resources, and network to encourage the public, policymakers, and other influencers to support our vision of clean water managed sustainably throughout the Northeast.

GOALS

- Establish initiatives and partnerships that anticipate or react quickly to rising environmental issues
- Translate scientific research into environmental applications



Momentous Indeed

The Historical Context of the Revolutionary War Gunboat, *Spitfire*

By John Krueger, HAPAC Chair

Captain Peter Merrill commanded the *Congress*, an American warship at the battle of Valcour Island. “We didn’t know it then,” he wrote on October 12, 1776, “but on what we were doing, depended the life of the Revolution, and the very existence of what we know as freedom.” The fictional Peter Merrill is a major protagonist in *Rabble in Arms*, the classic chronicle of the American Revolution by Kenneth Roberts. Although he’s a fictional character, the captain’s words are as true today as when they were first penned by Roberts in 1933.

Control of Lake Champlain had become a key element in the plans of both British and American policymakers by the summer of 1776. With 13,000 British and German troops under Sir Guy Carleton waiting to advance south from Canada and a disorganized, badly outnumbered army at Fort Ticonderoga and Mount Independence serving as the rebels’ northern line of defense, naval dominance on the lake was a major objective in the months following the signing of the Declaration of Independence.

The responsibility for building a fleet at Skenesborough (today’s Whitehall) went to a Connecticut man named Benedict Arnold. A fiery-tempered, strong-willed leader, the 35-year-old Arnold called in ships’ carpenters from the seacoast, recruited blacksmiths from the regiments at Ticonderoga and Mount Independence, and drafted 300 soldiers to man the vessels. By late summer Arnold and his captains had patched together an assortment of schooners, gunboats, and galleys, crewed largely by untrained soldiers.

Working north of the border at St. Johns, General Carleton and his subordinates had assembled a more impressive flotilla boasting the three-masted frigate the *Inflexible* with 18 twelve-pounder cannon. The British vessels, larger and with better sailing characteristics, were crewed by experienced sailors and commanded by skilled naval officers.

After carefully reconnoitering the lake for the best anchorage, Arnold sailed his warships into the deep channel between Valcour Island and the New York shore on September 23. Hardly a man to avoid combat, Arnold realized that in a fight on the open water of the broad lake the training and quality of crews would tell in favor of the British, a consideration that explained his presence in the channel between Valcour and the New York mainland.

Arnold believed that the over-confident British would sail south of the island before discovering the rebel vessels and then would have difficulty in beating back against the wind. Since the British ships couldn't do this in unison, Arnold planned to pick them off one by one. It was a well-chosen position to maximize his chances against a more numerous and technically superior foe.

About eight o'clock on Friday morning, October 11, the British fleet cleared Cumberland Head on a strong north wind and sailed south of Valcour before discovering the rebel fleet. As soon as the leading British ships saw the American vessels, they turned and attempted to beat upwind.

By eleven o'clock the battle was underway. The Americans kept the fighting relatively equal at the outset, as the larger British ships had a difficult time beating upwind to train their heavy guns on the rebel line. The American position gradually deteriorated as the day progressed. When the *Inflexible* frigate finally joined the fray with some well-aimed broadsides, the uneven contest was decided.

As darkness fell, Carleton stretched a blockade across the southern end of the channel in anticipation of accepting Arnold's inevitable surrender in the morning. However, under the cover of a heavy fog, Arnold and his captains executed a daring nighttime escape.

American sailors and marines desperately sailed and rowed their battered, leaking ships southward. With the *Congress* and the *Washington* galleys in the rear, the fleet made its way to Schuyler Island, where it anchored briefly to stop leaks and mend sails. Two weakened gunboats, the *Spitfire* and the *Jersey*, were abandoned during the retreat.

When Carleton discovered the flight of his quarry on the morning of October 12, a

36-hour chase ensued. Moving south, the British overtook and claimed the abandoned gunboat the *Jersey*. The *Spitfire* gunboat was already resting in deep water on the bottom of the lake, where she still rests today.

On October 13, near Split Rock, the British fleet finally caught up with the ships straggling at the rear of the line. Already heavily battered, the *Washington* galley absorbed several broadsides and then struck colors and surrendered.

The British armada quickly gained ground on the *Congress* galley and the four gunboats. Arnold finally sailed the galley and the gunboats into a small bay on the lake's eastern shore. There, he beached and burned the vessels and led his men through the woods and across the narrows to relative safety.

So why is this important? Perhaps Captain Peter Merrill can answer best:

"I know battles are not great because of the numbers engaged in them, or because of the heaps of slain. Some of the greatest have been between small bodies of men, but are great because of deciding matters of moment to the world. I know the battle we fought at Valcour Island was momentous indeed, and that no force, great or small, ever lived to better purpose or died more gloriously than the force than manned Arnold's fleet on Lake Champlain. It had saved the lake for that year; and it had done more: it had won the delay that brought us the chance to fight at Saratoga - a chance that otherwise must have been forever lost."

If that rationale isn't sufficiently convincing, remember, a civilization without memory ceases to be civilized, and a civilization without history ceases to have identity. A sense of history provides us with the closest point of contact with the men and women of the past.

The Continental gunboat the *Spitfire* is a pristine time capsule. The preservation, interpretation, and display of this precious relic will enable us to better understand how earlier Americans lived and struggled. We can recognize them as people like ourselves and gain an increased appreciation of our society and our heritage.

Meeting 2 Agenda

9:00 Welcome and Recap

9:15 Meeting and Process Mapping Overview

9:30 Process Mapping

10:15 Break

10:25 Process Mapping (continued)

11:45 Wrap Up and Plan for Next Meeting

12:00 Adjourn

Meeting 3 Agenda

9:00 Welcome and Recap

9:15 Process Map Review and Additions

9:30 A3 Goals Review and Root Cause Analysis (Materials, Methods, Machines)

10:15 Break

10:25 Brainstorming and Idea Vetting

11:45 Wrap Up and Plan for Next Meeting

12:00 Adjourn

Meeting 4 Agenda

9:00 Welcome, Recap and Updates

9:15 Finalize Future State Map and Assumptions

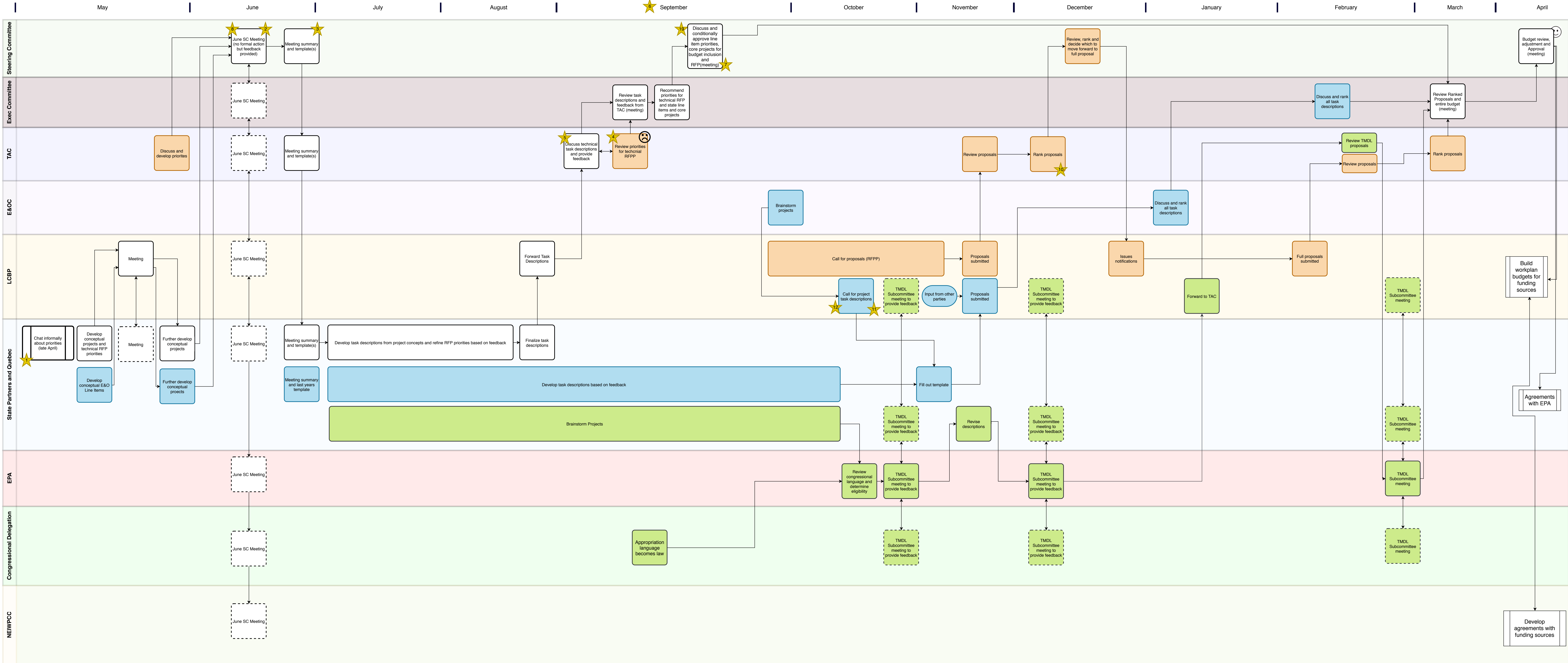
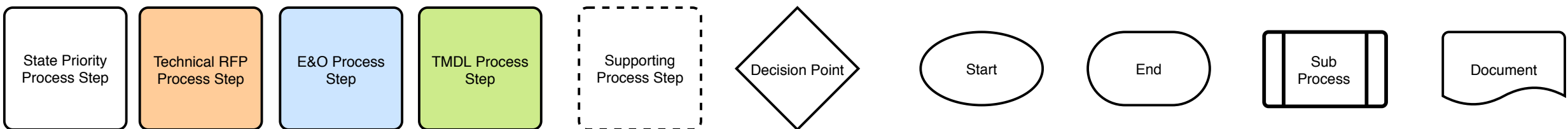
10:15 Break

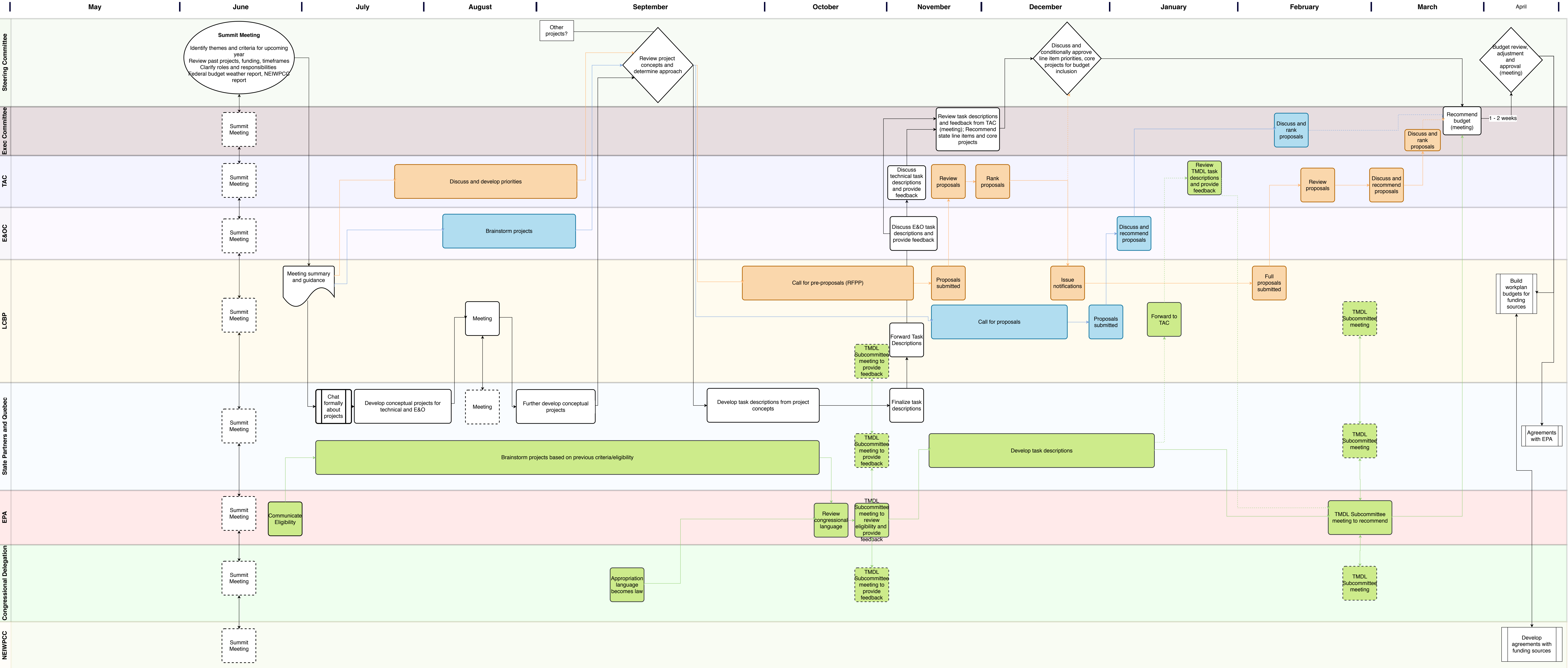
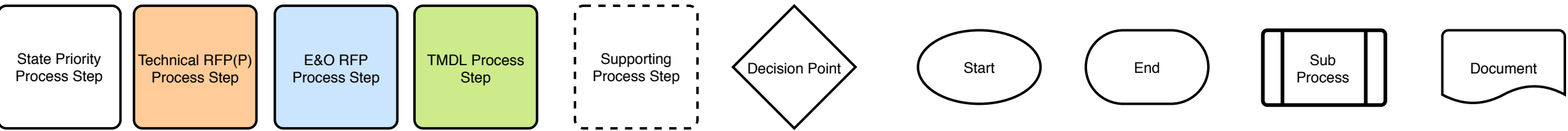
10:25 Develop High Level Action Plan

11:45 Wrap Up and Plan for Steering Committee Meeting

12:00 Adjourn

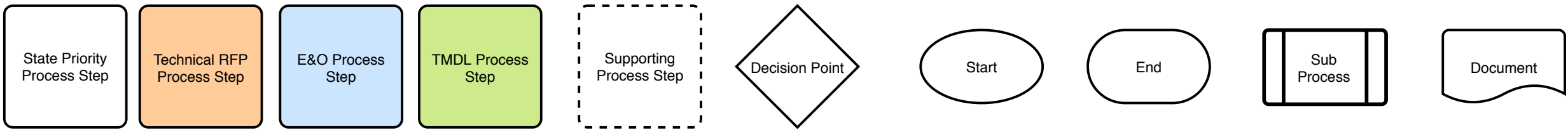
Process Name: LCBP Budgeting Process





Process Assumptions	
Webpage developed	
Document outlining roles and responsibilities for parties involved at each step of the process (RASC)	
Specific decision-making criteria (RFP steps, Committee)	
Calendar outlining important dates	
Templates match new process	
Summary/status report on projects for June Summit	
Transition E&O this year	
Transition TMDL this year	
Clarify/rename project buckets	

Process Name: LCBP Budgeting Process



May

June

July

August

September

October

November

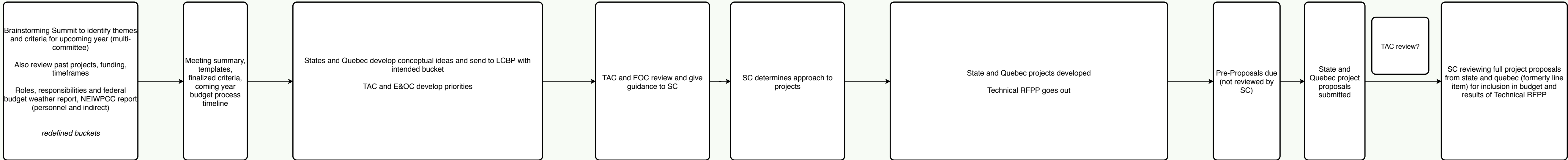
December

January

February

March

April



Idea Board

1. Include Quebec in early conceptual project ideas
2. Straw poll/temperature check
3. Clarify criteria for E&O
4. Clarify roles around developing technical RFP priorities
5. Clarify role in line item review of state partner task descriptions
6. Create room for changes/refinements in September
7. Can a decision be made later in the year?
8. Preliminary determination on funding approach (line item vs. RFP)
9. Clarify who is eligible to apply for what and why there are line item projects
10. Priorities within categories (weighting)? Would need to happen at June meeting
11. Refine solicitation parties and project criteria
12. Make this an RFP process
13. Create consistency in review/ranking of TAC and E&OC
14. Open up competition for E&O and/or no pre-proposal
15. Prior budget review in relation to Opportunities for Action (is funding going to the right places?) - perhaps in June
16. Merge TAC and E&O projects into one RFP
17. Be more specific with priorities on the front end (September Meeting?)
18. Remove Steering Committee from RFPP Process
19. Line Items proposed in December, September Meeting sets priorities , June is feedback and review of prior year/OFA/results/themes (multi-committee meeting) - criteria after June meeting starts process and steps move to the right
20. Change language (line vs. core)

Conceptual Ideas for NYSDEC and VTDEC Lake Champlain Basin Program (LCBP) Joint Priorities
June 9, 2020

Project concepts numbered for ease of reference, not priority order.

Proposed States Line Items (proposed to be implemented by New York and Vermont):

1. Implementation of Municipal Roads General Permit (MRGP) Standards on Non-Regulatory Road Networks: Vermont DEC's Municipal Roads General Permit (MRGP) program is a streamlined process for inventorying roads and prioritizing and constructing projects to improve water quality. In FFY20, the Lake Champlain Basin Program funded the adoption of the MRGP inventory methodology for additional non-regulatory road networks (e.g., rural and municipal roads in New York and state forest, state park, and private roads in Vermont) to identify and prioritize best management practices (BMPs) to reduce phosphorus loads to Lake Champlain. The initiative proposes FFY21 funds be directed to implement the resulting prioritized projects, as well as support any additional inventory phases. Inventory and implementation work will be targeted geographically to priority subwatersheds.
2. Implementation of the Forest Load Allocation of the Lake Champlain Total Maximum Daily Load (TMDL): Forested lands contribute 15 percent of total phosphorus loading to Lake Champlain and the Phosphorus TMDLs for Vermont Segments of Lake Champlain requires a 19 percent reduction in total phosphorus from forested land uses. Even though there is no required TMDL reduction from forested land on the New York side of the watershed, forested land does contribute 9.2 percent of the total phosphorus loading to Lake Champlain. Phosphorus reductions from forested land uses will primarily involve remediating erosion and altered hydrology associated with forest trails and roads and legacy logging operations. In FFY20, the Lake Champlain Basin Program funded assessment work to identify and prioritize project opportunities and develop an implementation plan to achieve TMDL load reductions in forest land. This initiative proposes FFY21 funds be directed to implement the resulting prioritized projects, as well as support any additional assessment phases.
3. Development and Review of Interstate Clean Water Project Tracking and Accounting Methodologies: Under the Clean Water Service Delivery Act (Act 76 of 2019), Vermont is required to publish methods to estimate phosphorus reductions for all clean water project types in the Lake Champlain and Lake Memphremagog basins by November 1, 2021. To meet Act 76 requirements and centralize all of Vermont's TMDL tracking and accounting methods, VTDEC's Clean Water Initiative Program (CWIP) has been developing TMDL Tracking and Accounting Standard Operating Procedures (SOPs) for each land use sector (developed lands, agriculture, wastewater, and natural resources). After the initial publication of Tracking and Accounting SOPs in late 2021, the state is required to periodically review accounting methods at least every five years to determine the adequacy or accuracy of pollutant reduction values and design lives. This project proposes to have an external review of the published Tracking and Accounting SOPs assessing the adequacy of pollutant reduction values, similar to the peer review process for scientific journals. Current LCBP projects that address accounting of soil and sediment phosphorus reductions, agricultural BMPs, as well as broader collaborative efforts such as the work of the New England Interstate Water Pollution Control Commission (NEIWPCC) Tracking and Accounting Collaborative to establish consistent methodologies within the region could be valuable contributions to this work. Vermont could use this external review to inform future revisions to SOPs and improve the state's overall TMDL tracking and accounting methods. NYSDEC is concurrently developing a statewide BMP tracking database with SOPs that will account for project implementation in the Lake Champlain basin. While the database is being finalized, New York's SOP will be complete. A comparison with VTDEC's

Tracking and Accounting SOPs will be needed to ensure basin-wide consistency. An external review will identify where BMP tracking and accounting procedures could be better aligned between the two states so that Phosphorus reduction estimates and progress reporting for the Lake Champlain TMDL is consistent and comparable across the entire basin.

4. Enhanced Agricultural BMP Pilot Projects: VTDEC and NYSDEC proposes to support the development and implementation of several agricultural BMP pilot projects that are not currently or completely addressed through other state and federal funding initiatives. This project would fill gaps in existing funding opportunities, leverage additional incentives for enhanced BMPs, and pilot innovative management approaches.
 - *Addressing gaps in existing funding opportunities*: This could include BMPs such as stormwater runoff management on farms, to enhance treatment, mitigate flow, as well as decrease or eliminate connectivity between barnyard and field runoff with surface waters; supplement existing funding to further adoption and implementation of seeding down fields with significant erosion and soil loss potential; support implementation of manure injection to address critical management during winter season and mitigate water quality impacts. Specifically, for NYSDEC, this initiative envisions a pilot watershed-wide cover crop program: Existing federal and state programs in NY have not been effective for the implementation of cover crops. Cover crops require specialized equipment and short contract terms only encourage implementation for a 2-3-year period. NY has piloted watershed-wide cover crop programs in the Chesapeake Bay, Genesee River, and Finger Lakes watersheds where federal or state funding has been dedicated to purchase equipment that is shared across multiple counties and funds Soil and Water Conservation District staff time to plant cover crops on behalf of farmers. NY proposes to replicate and pilot this type of program in the Lake Champlain watershed.
 - *Incentivizing enhanced BMP implementation*: Examples of enhanced BMP initiatives could include enhanced agricultural-land buffers to provide long-term comprehensive management of riparian wooded buffers that employ innovative planting methodologies to ensure survivorship, and supplement Conservation Reserve Enhancement Program (CREP) funding to farmers for implementation; and incentivized restoration of smaller (20 acres or less) wetlands impacted by agriculture that are hydrologically connected or meet other identified criteria.
 - *Piloting innovative management approaches*: Some projects that have been identified for further development and evaluation include piloting a cost-share program for manure transfer to further assess feasibility of movement of manure in state to address phosphorus balance issues; as well as piloting a payment for ecosystem services program that incentivizes phosphorus reductions beyond requirements.
5. Inland Lake Watershed Action Plan Funding Concept: A Lake Watershed Action Plan (LWAP) is a comprehensive assessment of a lake watershed to identify areas of the watershed with the highest levels of nutrient/sediment pollution, stormwater runoff, and habitat degradation for targeting pollution prevention and natural resources restoration projects. Work includes project development and prioritization to target cost effective actions, via the identification of sources of water quality and habitat impacts, prioritizing these threats based on various environmental, economic, and social criteria, and designing projects to mitigate these threats. The LWAP results in a prioritized list of projects and strategies to address/mitigate stormwater runoff, nutrient pollution, and habitat degradation. The plan may also contain recommendations to preserve natural features and functions, encourage use of low impact green stormwater infrastructure, and maintain the aesthetic and recreational uses of lakes. The lake watershed areas that are assessed include, but are not limited to, tributary streams, roads, developed lands, lake shoreland, aquatic invasive species, and

littoral habitat. To date, two LWAPs have been developed in Vermont (Lake Eden and Lake Elmore), and a number of other lake associations, including those representing lakes in the Lake Champlain Basin such as Lake St. Catherine and Lake Dunmore, have expressed interest in developing LWAPs. VTDEC Watershed Management Division views these plans as a useful tool to identify nutrient reduction projects in a watershed, support local organizations to implement these projects, and identify funding sources. LWAPs can also provide critical information to support local Harmful Algae Bloom (HAB) management plans. VTDEC has also modeled phosphorus reduction from lake-watershed management efforts in the Lake Champlain Basin, such as at Lake Carmi, and could provide estimated phosphorus reduction calculations for projects identified in these plans if necessary.

6. National Wetland Inventory+ (NWI+) Mapping of the Lake Champlain Basin: The understanding of spatial extent of wetlands in this basin is crucial to managing water quality and protecting this valuable natural resource. Wetlands are threatened by excess nutrients, land conversions, and fill in this region. Conversely the wetlands themselves provide benefits in reducing phosphorous pollution and numerous other co-benefits. The main objective of this proposal is to improve our knowledge of wetland extent within the Winooski River sub-basin of the Lake Champlain Basin in the central-west portion of Vermont and Greater Chazy River watershed in New York using the same methodology which is being used to update the mapping in the Missisquoi sub-basin (completed 2019) and Otter Creek (completion by 2022). The main tasks are to contract a consultant to produce high quality NWI+ level mapping of the sub basin and internally (ANR) field-review the accuracy of the mapping. Alternatively, a second contract for a different consulting firm could complete field review with ANR guidance. Entities who are designing water quality improvement projects need to know where wetlands are early in their design to maximize results and co-benefits. Developers and landowners could also use this information to avoid wetland impacts. The information can be used to enhance water quality objectives by incorporating the maps into several state models which identify potential wetland restoration projects and conservation priorities. This work will be subcontracted with a qualified mapping firm which has experience creating National Wetlands Inventory Mapping.
7. Stormwater Planning and Assessment: This project proposes to further develop stormwater planning in non-regulated communities in New York and assessments to promote public-private partnerships for stormwater treatment in Vermont. These stormwater planning and assessment activities are critical steps in determining cost-effective approaches to mitigate negative impacts of stormwater, as well as identify opportunities to treat additional unregulated impervious cover and encourage public-private landowner partnerships to meet stormwater management requirements, where applicable. NYSDEC proposes to develop stormwater master plans for 1-2 non-regulated communities that have been identified in New York's draft Watershed Implementation Plan as needing assistance with stormwater infrastructure. Guidelines for stormwater master planning have been developed by VTDEC; similar guidelines will be followed for plans developed in New York. Communities that receive stormwater master plans will become eligible for further planning, design, and implementation funding through NYSDEC's water quality grant programs. In Vermont, the parcel assessments will be conducted with the goal of finding the most cost-effective nutrient reduction opportunities and encourage partnerships to facilitate stormwater mitigation. The project will propose a variety of mitigation actions, including green stormwater infrastructure and low impact development. Through these stormwater planning and assessment activities, projects would be prepared to initiate design and implementation if funding allows.

Priorities for Technical Request for Proposals:

8. Feasibility Analyses of In-Lake Phosphorus and/or Cyanobacteria Mitigation Techniques for Lake Champlain: While implementation of landside BMPs is the primary mechanism to reduce phosphorus loading to Lake Champlain, internal cycling of nutrients within the lake could also contribute significant amounts of phosphorus and prevent achievement of water quality goals. Additionally, it will take decades for landside phosphorus reductions to drastically reduce cyanobacteria blooms in Lake Champlain's "hotspots" (e.g., Missisquoi Bay). Increased research is needed to determine cost-effective methods for reducing internal loading of phosphorus in freshwater systems, as well as techniques for mitigation of cyanobacteria blooms. This initiative proposes feasibility analyses of techniques for application in Lake Champlain, such as the following.
- *Phosphorus bioextraction techniques* through use of native aquatic organisms and plants to remove nutrients from the water column, with goal of minimal impact to the ecosystem. This research would include determination of species for phosphorus uptake, determining high phosphorus habitats to test pilot, and assessing the current state of water quality/clarity to create a pre-bioextraction baseline in the selected pilot project areas.
 - *Cyanobacteria bloom mitigation* through algae harvesting techniques that remove nutrients from the water column through removal of intact algae cells. Techniques may involve deployment of technologies, such as dissolved air flotation or other "Harmful Algal Bloom Interception, Treatment, and Transformation Systems" under development by U.S. Army Engineer Research and Development Center (ERDC) and being piloted in New York State and Florida.¹


¹ "Harmful Algal Bloom Interception, Treatment, and Transformation System, "HABITATS" : pilot research study phase I - summer 2019" study available at: <https://erdc-library.erdcdren.mil/jspui/handle/11681/35214>.

TAC FY21 Priorities Brainstorm

At the June TAC meeting, TAC had an informal brainstorming session about technical priorities for the FY21 technical budget. The following is a list of ideas they had, with supporting rationales if they were stated:

- **Road de-icing alternatives:** were a FY20 priority but did not get addressed in that round of grants
- **Environmental Sensitivity Index (ESI) mapping:** proposal based on recent work on oil spill response planning in the Basin, a small working group has been formed to investigate the idea
- **Phosphorus mass balance analysis for Missisquoi Bay:** stemming from IJC nutrient study recommendations
- **Nutrient management programs for non-regulated farms**
- **Reviewing/evaluating Payment for Ecosystem Services (PES) tools**
- **Conservation and restoration research and implementation to support water quality, flood resilience, native species and their habitats**
- **NY-Specific priority on stream equilibrium and geomorphic assessment:** continuation of current efforts
- **Emerging contaminants:** such as microplastics, atmospheric mercury, PFAS
- **Drivers of phosphorus concentration increases in oligotrophic lakes**

ID	Task Name	% Complete	Jun 2020				Jul 2020				Aug 2020				Sep 2020				Oct 2020				Nov 2020				Dec 2020				Jan 2021				Feb 2021				Mar 2021				Apr 2021				May 2021				Jun 2021		
			5/31	6/7	6/14	6/21	6/28	7/5	7/12	7/19	7/26	8/2	8/9	8/16	8/23	8/30	9/6	9/13	9/20	9/27	10/4	10/11	10/18	10/25	11/1	11/8	11/15	11/22	11/29	12/6	12/13	12/20	12/27	1/3	1/10	1/17	1/24	1/31	2/7	2/14	2/21	2/28	3/7	3/14	3/21	3/28	4/4	4/11	4/18	4/25	5/2	5/9	5/16
1	TAC SOL update and messaging analysis needs	0%	◆																																																		
2	LCBP Staff messaging analysis/refinement	0%	<div></div>																																																		
3	TAC/E&O messaging analysis/refinement	0%	<div></div>																																																		
4	Messaging analysis/refinement completed	0%	◆																																																		
5	TAC/E&O Content Review (incl. graphics)	0%	<div></div>																																																		
6	Graphics Development	0%	<div></div>																																																		
7	Content Development	0%	<div></div>																																																		
8	TAC/E&O Feedback on Graphics	0%	◆																																																		
9	Print Design (layout and graphics)	0%	<div></div>																																																		
10	E&O Review/Edit & TT approval	0%	<div></div>																																																		
11	Executive Committee approves content	0%	◆																																																		
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17	SOL Release	0%	◆																																																		

 Tech Team
 E&O
 External Contractor
 Milestone